SPECIAL REPORT
RACE AND CULTURE IN THE C-SUITE PAGE 76

FORTUNE

FEBRUARY 1, 2016

FORTUNE.COM

THE RECKONING

Private investors have plowed $362 billion into startups in the past five years. Now tech IPOs are in trouble. **Good luck getting out.** PAGE 52

PLUS:

WHY CHINA IS SPOOKING THE MARKET

PAGE 8

THE BILLIONAIRE BEHIND WALGREENS' QUEST FOR GLOBAL DOMINANCE

PAGE 66

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Volume 173 Number 2

FORTUNE

features

Manufacturing pills in 1930 at a Boots factory. After its merger with Walgreens, is the chemistry still there?

DAILY MAIL/REX/SHUTTERSTOCK

ON THE COVER: ILLUSTRATION BY STEPHEN CHAN

FORTUNE

departments

Smarter than they look: Robots like this one will all connect to a "mother brain" in the cloud.

Macro

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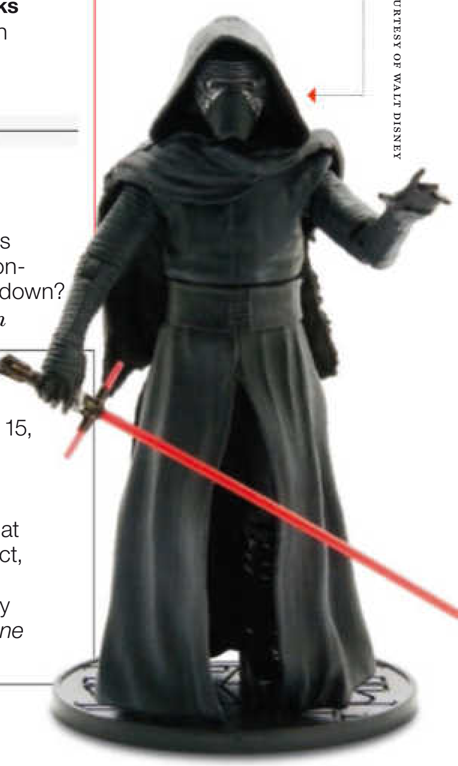
Tech

Invest



CORRECTION
"Good Stocks for Bad Times" (Dec. 15, 2015) incorrectly stated that Virgin America shares pay a dividend that yields 4.9%. In fact, Virgin America shares do not pay a dividend. *Fortune* regrets the error.

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The New Industrial Revolution

DAVOS, SWITZERLAND

I'VE BEEN ATTENDING the annual meeting of the World Economic Forum on and off for more than two decades. As a journalist, I find it irresistible, with hundreds of the world's most interesting subjects squeezed into a small Alpine village, trudging about in snow boots. It was here that I heard Masayoshi Son, at the height of the first Internet bubble, gush about a company he had just bought that would sell you "anything for less than they paid for it"; that an angry Carly Fiorina told me her relations with the HP board were "excellent" two weeks before it fired her; that I met Nelson Mandela, Sharon Stone, and Dmitry Medvedev. Where else?

But the forum has always struggled with purpose. Yes, everyone is here, but why? The organizers of the event declare a theme each year, but it is usually so vague and inclusive as to be meaningless: "The New Global Context" (2015), "The Reshaping of the World" (2014), "Resilient Dynamism" (2013).

This year is different. The topic is "Mastering the Fourth Industrial Revolution." And in case there is any doubt about what that means, Klaus Schwab, the enterprising Swiss professor who created this über-gabfest, has written a useful primer on the subject. I recommend it to anyone still in the dark.

Historians can argue over professor Schwab's numbering scheme, but there is no longer any question that the early 21st century is witnessing a set of economic changes of historic importance—characterized, as Schwab says, "by a much more ubiquitous and mobile Internet, by smaller and more powerful sensors that have become cheaper, and by artificial intelligence and machine learning." Conversations in Davos this year revolve around this topic: How will this new industrial revolution transform business and the economy? How will it change the nature of work? What does it mean for jobs, inequality, and the environment?

Davos's obsession is also *Fortune*'s, as you will see in this issue of our magazine. One fascinating aspect of the revolution is businesses that scale with unprecedented speed because of low or zero costs at the margin. It's that dynamic that has enabled the more than 170 startups on our unicorn list to achieve valuations exceeding $1 billion. With the market meltdown, many of those valuations are now being called into question. But the underlying dynamic remains strong and striking. (See the story on page 52.)

Schwab, like others, says speed is a signature characteristic of the new era. "The speed of innovation in terms of both its development and diffusion is faster than ever," he writes. But there's a catch: While innovation may be accelerating, most organizations aren't keeping up. In our Big Think this month (page 43), Tom Monahan unveils evidence that business decision-making has actually slowed down in recent years. The ability of human systems to deal with the revolution appears to be seriously challenged.

Globalization is another driver of change, and in this issue Jennifer Reingold provides a fascinating look at the Italian billionaire who is trying to turn your corner drugstore into an international powerhouse (page 66). Ellen McGirt also does a deep dive into the challenges African-American men face in the higher ranks of business (page 76).

So if you didn't make Davos this year, don't fret. The revolution will continue—in the pages (and the digital and live offerings) of *Fortune*.

ALAN MURRAY
Editor
@alansmurray

PHOTOGRAPH BY **WESLEY MANN**

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CLOSER LOOK

TERRIFIED BY CHINA? BLAME ITS LEADERS

Most economists knew that China's slowdown was inevitable, and so did China's government. But it's the ruling Communist Party's reactions, as much as the slowdown itself, that's making life miserable for investors.

By Scott Cendrowski

THE BIGGEST RESIDENTIAL real estate developer in China, and for that matter the world, is having a banner year. Revenue rose 31% in the latest quarter, to 27.3 billion yuan ($4.3 billion), and profit by 22%. "Vanke is doing well," founder and chairman Wang Shi tells *Fortune*. "It's not affected at all by the difficult economy."

Wait, what?

Wang may sound blasé, but his optimism isn't unwarranted. China's economy is a two-headed dragon right now. Some heavy industries and their home provinces are in recession, struggling under the weight of debt and facing less demand for their stuff—steel, coal, concrete, exports. But retail sales, consumer services, and the coastal-province economies that rely less on big industry are still growing at close to double-digit rates. Talk to a Chinese consumer—or to executives like Wang who make money serving that consumer—and it's as though those headlines about the nation's collapse don't even exist.

DAVID PAUL MORRIS—GETTY IMAGES

Pedestrians and shoppers in Macau, China, where the dominant local casino industry has been hurt by new government policies and the country's slowdown

FEAR FACTOR

THE CHINESE NEWS IS BAD—BUT MAYBE NOT THIS BAD

Investors' reactions to China's slowdown have arguably been more extreme than the slowdown itself. Some highlights from among the markets' new lows:

–43%
Decline of the Shanghai Composite Index since its June 2015 peak

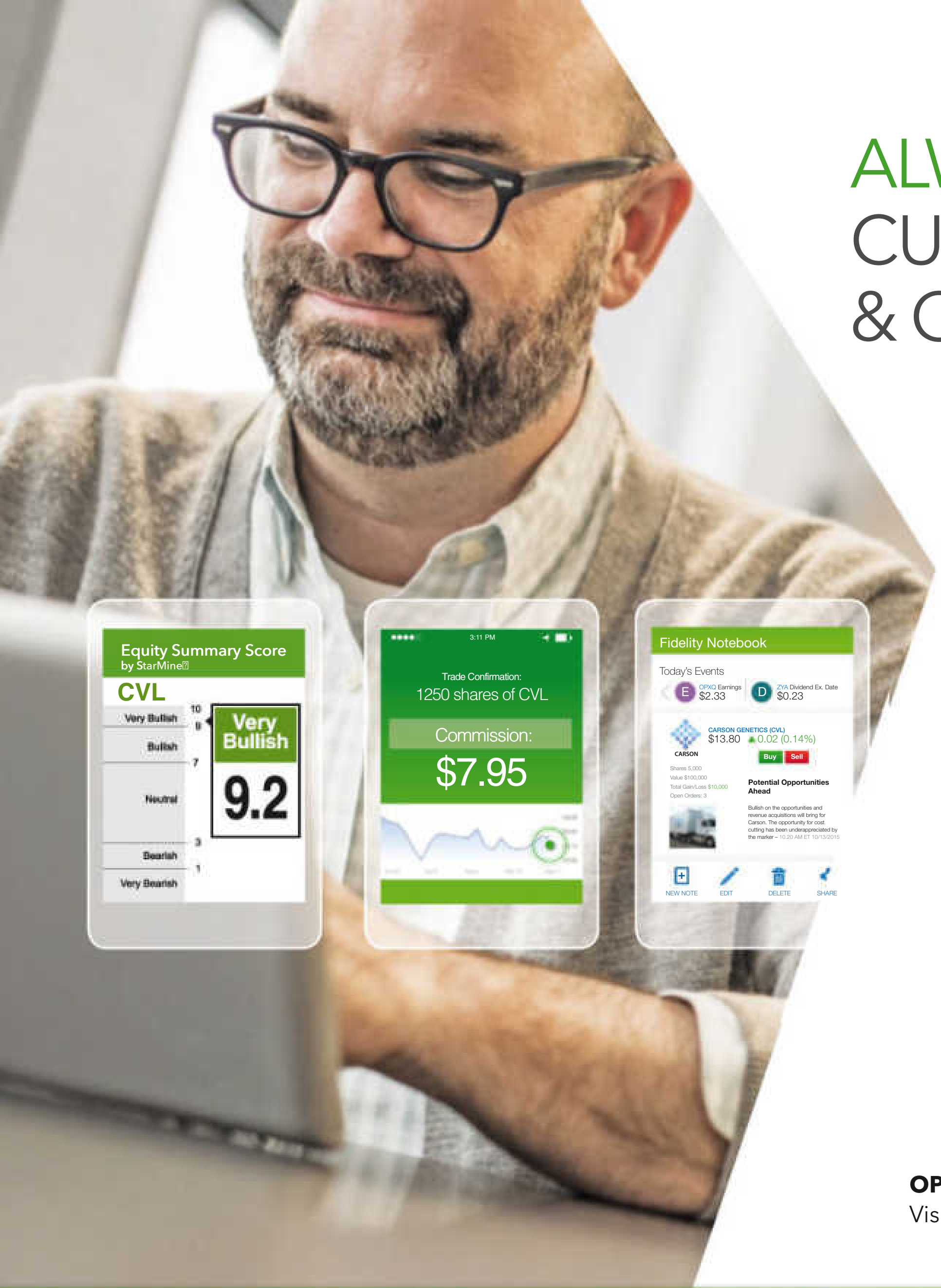
$20 a barrel
The price predicted for oil in January by Morgan Stanley analysts, citing the combination of weakening Chinese demand and the devaluation of the yuan, among other factors. A $20 low would represent an 81% drop since June 2014.

550
Low for the S&P 500 predicted by Société Générale global strategist Albert Edwards on Jan. 13. At the time, the S&P 500 traded at about 1,900.

"SELL EVERYTHING EXCEPT HIGH-QUALITY BONDS ... THERE IS NO ONE TO TAKE UP THE BATON OF GROWTH."
—Andrew Roberts, research analyst, RBS

There's nothing unexpected about this economic rough patch. Experts have been predicting and welcoming China's "rebalancing" toward consumers for years. And government propaganda has been preparing citizens for a "new normal" of accompanying lower economic growth.

But China's stock markets and a declining Chinese currency are still inciting fear among investors that the country's sluggishness could trigger a global recession. And on both of those fronts, critics say, China's Communist Party is making matters worse. Its stock market "circuit breakers" only increased the volatility of its major indexes; its currency devaluations looked like uncoordinated panic moves. Together, these actions have suggested to Western observers that Communist Party policymakers were not the great and powerful Oz they had imagined—they were more like the cowardly lion, lacking the courage to let



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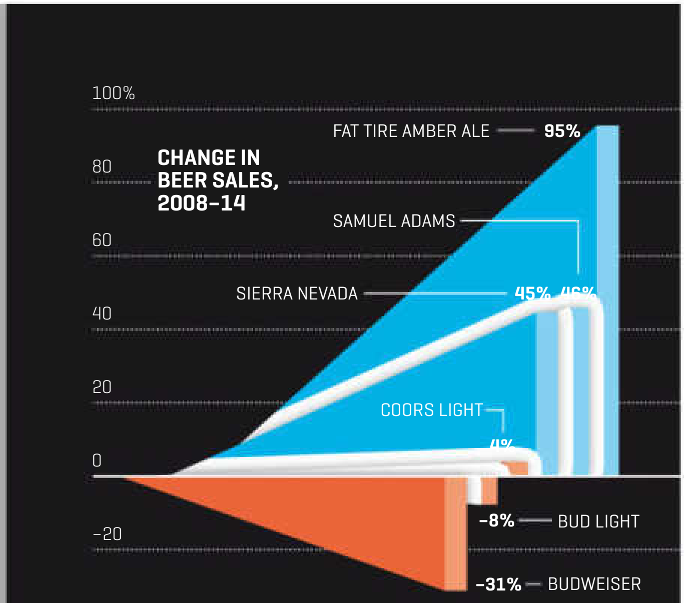
rebalancing run its course.

Like the overweight guys who right around now are bailing out on their New Year's resolutions to hit the gym, the government has been cheating on its promise to usher in the new consumer era. For example, instead of allowing indebted state companies to go bankrupt, state-controlled banks are setting aside funds for them. When China announces interest rate cuts, much of the extra money flows to these state enterprises, while successful private companies are stuck paying higher rates. The share of borrowers who pay 50% or more above China's benchmark interest rate had risen to 18% by mid-2015, from 12% in late 2014, according to Gavekal Dragonomics analyst Joyce Poon. She says, "The squeeze on the private sector is only just starting."

Whatever its motives—saving jobs, preventing social unrest—the government's propping up of the industrial sector prevents the country from moving on. "Beijing must ultimately choose between higher debt, higher unemployment, or higher transfers of wealth from the state sector to the household sector," Peking University professor Michael Pettis has said. The world will be better off if China chooses option three, ending its favoritism toward state-owned business; otherwise, debt and stagnation could cut off the dragon's healthier head. ■



GRAPHIC SOURCE: EUROMONITOR INTERNATIONAL

BOTTOMS UP, SALES DOWN

Big Beer's M&A Bender

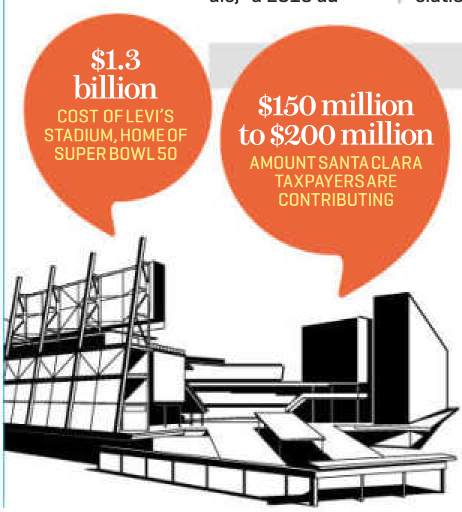
WITH THEIR TOP BRANDS LAGGING, EXPECT THE GIANTS TO KEEP BUYING CRAFT BREWERS. *By John Kell*

WHEN IT COMES to Super Bowl beer ads, consistency is key, in the form of sturdy Clydesdales and manly men. But last year Budweiser conjured up a new theme: trash talk. "Let them sip their pumpkin peach ale," a 2015 ad teased, mocking craft-beer lovers who have scorned domestic lagers. "We'll be brewing some golden suds."

Snobby it may be, but the craft-beer industry is having the last laugh. The Brewers Association estimates that craft brands more than doubled their share of the $100 billion beer market, to 11%, in the past four years, while sales of mass-market beer stagnated.

How have the big brewers combated the trend? By guzzling the competition. In 2015, 19 craft-beer deals worth $13 billion were announced in the U.S., according to research firm Dealogic. AB InBev, MillerCoors, Constellation Brands, and Heineken—which together control 81% of the U.S. market—all announced deals. Heineken's 50% stake in Lagunitas and Constellation's nearly $1 billion Ballast Point takeover were the first deals either company made in the craft category. "We see the future growth in the beer business coming from two areas: our Mexican import business and craft," says Constellation CEO Rob Sands.

You're likely to see more of the same in 2016. Bud parent company AB InBev bought three craft brewers in the span of five days in December. And that pumpkin peach ale Bud mocked? AB InBev bought the brewer that made it—weeks before that ad ran. If you can't beat them, buy them.



THE SUPER BOWL DOES NOTHING FOR TAXPAYERS

TAXPAYERS HAVE spent some $17 billion since 1986 on new football stadiums—and Levi's Stadium, home of Super Bowl 50, is among the most expensive of the bunch. But while Super Bowls infuse their host cities with cash, they also generate expenses (think fire and police protection), and they don't do much to help taxpayers recoup those subsidies. Case in point: The city of Glendale, Ariz., host of last year's Super Bowl, recently reported a profit of $13,000 from the game—about 18¢ per fan in attendance. —*Matt Heimer*

ILLUSTRATION BY
MARTÍN LAKSMAN

Riddarholmen island, an older Stockholm neighborhood where many buildings date back to Sweden's boom years

UTOPIA DISMANTLES ITSELF

No More Nordic Miracle?

THE AMERICAN LEFT HAS IDEALIZED SCANDINAVIA'S SOCIAL-WELFARE POLICIES. BUT SCANDINAVIA ITSELF IS SCALING BACK.

By Chris Matthews

AS THE NATION'S attention turns to the caucuses and primaries in Iowa and New Hampshire, some Democrats will have Scandinavia on their minds.

The small nations of the Nordic region like Sweden, Denmark, and Iceland are rich and technologically advanced. But they also feature exceptionally generous welfare states and are more economically egalitarian than the rest of the wealthy world. During a time of rising income inequality, the American left is increasingly invoking Scandinavian countries as models for how to maintain the economic growth that capitalist competition allows while achieving more security and stability for the middle and lower classes.

Vermont senator and Democratic presidential hopeful Bernie Sanders has been at the forefront of the new Nordophilia. He has name-checked Denmark and Sweden in interviews and debates, arguing that the U.S. should copy policies like mandatory paid leave for new parents and free health care and college tuition. "In those countries, by and large, government works for ordinary people and the middle class, rather than, as is the case right now in our country, for the billionaire class," he told ABC News last year. Economists like Nobelist Joseph Stiglitz have argued that U.S. policymakers should use Scandinavia as a model for promoting balanced growth. They argue that emulating Scandinavia's welfare state and labor regulations would boost the economy by creating a more skilled workforce and by providing the security that would-be entrepreneurs need to risk starting businesses.

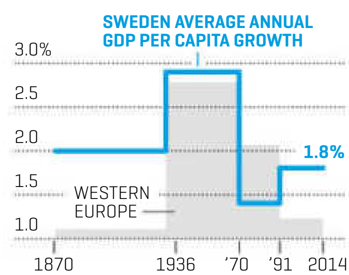
Nima Sanandaji, a research fellow at London's Centre for Policy Studies, argues that this line of thinking is too convenient. If you want to measure the effects of high government spending and wealth redistribution, "why not bring up Italy or France?" Sanandaji asks, referring to two other, less robust economies with large welfare states.

Sanandaji thinks that Scandinavia has grown despite its economic policy, not because of it. His research suggests that these countries built the wealth their citizens now enjoy long before leftist ideas took hold. For instance, from 1870 through 1936, Sweden was the world's fastest-growing economy. After 1975—when its welfare state began to expand in earnest—Sweden's economy noticeably slowed, falling from fourth richest in the world to 13th by the 1990s.

More recently, Scandinavian countries have been paring down their governments. Since the 1990s the total taxation of the Swedish economy as a percentage of GDP has fallen more than 5%, while labor-market reforms, such as Denmark's cutting of unemployment benefits, have also taken hold. Don't tell Sanders, but as Sanandaji puts it, Scandinavia is slowly "returning to its free-market roots."

LESS MAY BE MORE

Sweden's growth has historically outpaced Europe's—except during the years when it built up its welfare state.



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THE CORD CUTTER'S DILEMMA

The Bundle Is Dead. Long Live the Bundle

FANS OF STREAMING VIDEO FIND THAT DITCHING CABLE DOESN'T ALWAYS LOWER THEIR BILLS.

BETWEEN NETFLIX'S *Jessica Jones,* Amazon's *Man in the High Castle,* and iTunes' on-demand anything, an ever-expanding roster of must-watch streaming video means consumers have more excuses than ever to cast off the yoke of the big cable bundle. Nearly 1 million Americans cut the cord through the first nine months of 2015, and a PricewaterhouseCoopers trend analysis estimates that roughly 20% of U.S. consumers don't see themselves subscribing to cable this year.

But it's too soon to dance on the grave of the bundle. Many viewers are transitioning from cable packages to streaming packages, in a process analysts call rebundling, as streaming platforms team up with premium cable channels. In July, Hulu unveiled streaming access to Showtime for an extra $9 a month, joining Dish Network's Sling TV, which lets users add a $15 HBO Now subscription to its own $20 monthly fee. In December, Amazon offered Prime members add-on access to some 25 channels, including Showtime and Starz.

Here's the paradox: Adding multiple streaming options can now generate a bill approaching that of a big cable bundle. Sign up for two-thirds of the Netflix-Hulu-Amazon trio, add a live-TV option and a couple of premium channels, and your bill can easily top $60 a month—while offering fewer channels than cable packages that cost only slightly more (before fees and taxes).

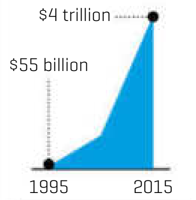
Most cable providers, meanwhile, either have launched or are experimenting with slimmer, cheaper bundles with à la carte pricing. Big Cable isn't dead yet. *—Tom Huddleston Jr.*

ABANDONED

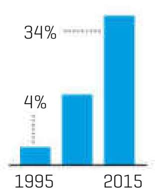
THE INVESTING WAR IS OVER, AND THE INDEX FUND WON

Some active mutual fund managers may know how to make money in today's market turmoil. But fewer customers are giving them the chance to prove it.

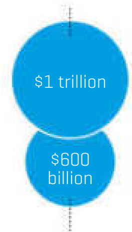
INDEX FUND ASSETS UNDER MANAGEMENT

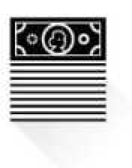


INDEX FUND SHARE OF MUTUAL FUND MARKET



FUND ASSET FLOWS, 2008–15





WHERE ARE THE VOTERS?

POLLING'S PRICE TAG RISES

RECENT HAND-WRINGING over accuracy isn't the only problem facing American political pollsters of late. A bigger issue is money: It costs them more than ever to reach the public. That's leading many campaigns and media outlets to experiment with cheaper but less proven automated and online alternatives, or simply conduct fewer polls. Here's what's fueling the steady rise in costs:

CELL CALLS ARE PRICEY. Some 47% of the population is cellphone only, by the CDC's count, so pollsters are increasingly surveying cell users. That population is two to four times as expensive to reach, says Republican pollster Bill McInturff, in part because federal law forbids firms from calling cellphones with the "autodialers" they use for landlines.

WE WON'T PICK UP. With caller ID now the norm, the industry response rate has fallen from 36% in 1997 to about 9% today, according to Pew Research. So a polling firm needs to make many more calls to complete a survey. In practice, a national phone survey that two years ago cost $50,000, is now at least $70,000, says Democratic pollster Anna Greenberg. *—Erika Fry*

BUNDLE: ORIGINAL PHOTOS BY AMAZON, NETFLIX; CHARTS SOURCES: INVESTMENT COMPANY INSTITUTE, GOLDMAN SACHS GLOBAL INVESTMENT RESEARCH; ICONS: MARTÍN LAKSMAN

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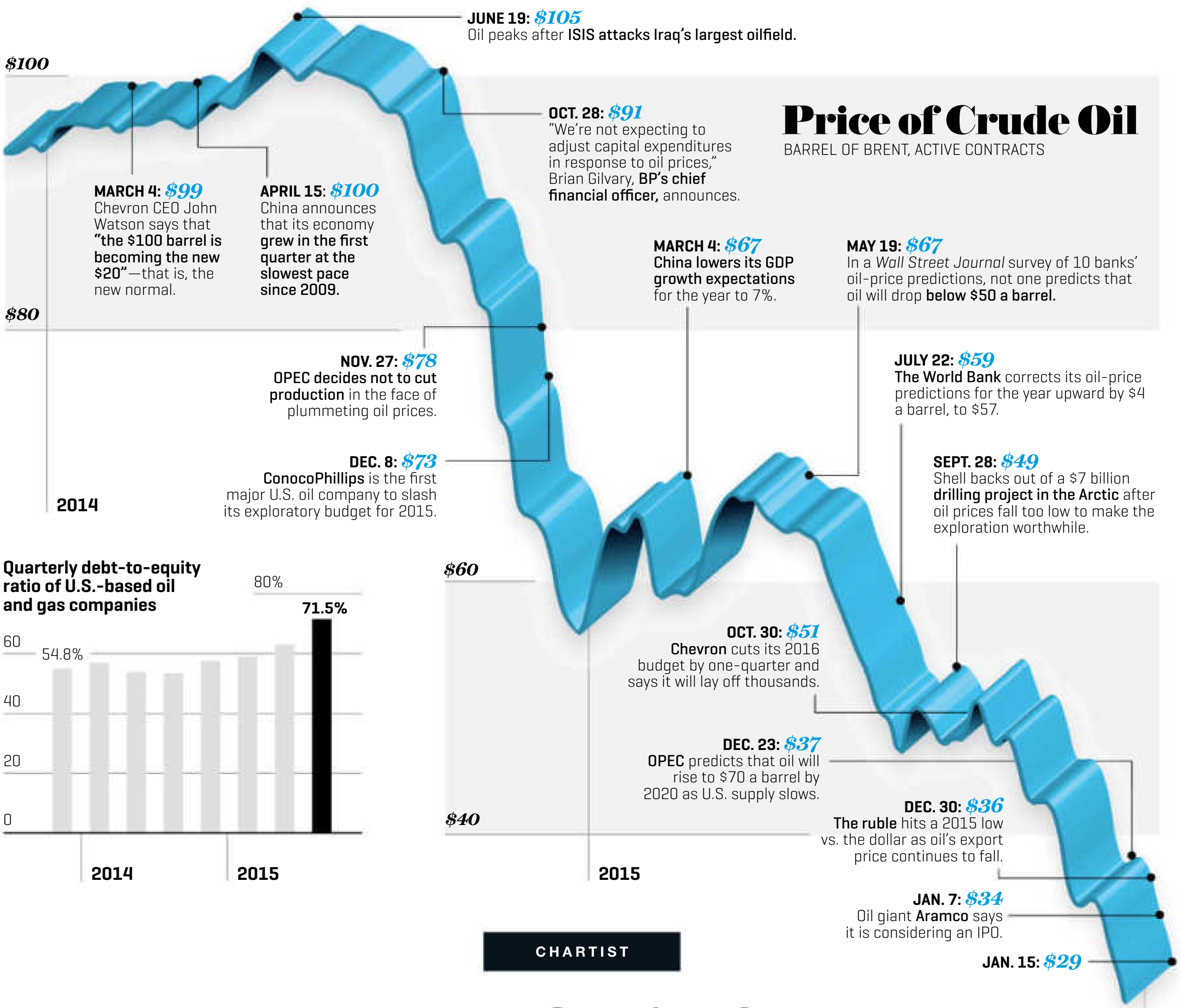

CHARTIST

Tracking Oil's Collapse

THE MILEPOSTS OF CRUDE'S 18-MONTH SLIDE INCLUDE CLEAR SIGNALS OF DOOM, ALONG WITH PLENTY OF HUBRIS, DENIAL, AND DISBELIEF.

IF WE COULD SEE disasters coming, they wouldn't become disasters. Oil's price is down 71% since June of 2014, and while some factors that triggered the tumble seemed obvious at the time, others hit our blind side. Most investors assumed that China's slowdown would hurt oil. But most also believed that Saudi Arabia and U.S. producers would put a floor under prices by cutting production; that didn't happen, in part because the Americans needed to keep cash flowing to service hefty debts. Shawn Driscoll, natural-resources portfolio manager at T. Rowe Price, told *Fortune* in November that oil could go to $30 this year. He says the low 20s now look realistic, and adds, "I don't think 2016 will be the ultimate low" for oil. —*Claire Groden and Matt Heimer*

GRAPHIC SOURCES: BLOOMBERG; S&P CAPITAL IQ

INFOGRAPHIC BY NICOLAS RAPP

WHEN CHOICE IS EVERYWHERE, WHO SHOULD YOU TRUST?

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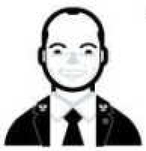
BLACK BOOK: SEE BEIJING LIKE A LOCAL

A visit to China's capital isn't complete without these hotspots and hidden gems. *By Adam Erace*



LEWIS LIU HAS BEEN GUIDING travelers in China for over a decade. Now the chief concierge at the new Rosewood Beijing hotel, Liu has amassed a sterling list of must-see recommendations and unforgettable experiences in this metropolis of 21.5 million people. Here's where he sends his guests.

- **Best new restaurant:** TRB Bites @ the Courtyard is the latest dining destination in Beijing. Its location in the Forbidden City is iconic, along the former Imperial Palace's eastern moat. The venue is a three-story experience in modern international cuisine.

- **Toughest dinner reservation:** At Duck de Chine, the cuisine incorporates Chinese and French duck-roasting traditions. Reservations are made one day in advance and are available only for a 6 p.m. or 8 p.m. time slot. Otherwise expect to queue for at least half an hour.

- **Great Wall outfitter:** Wild China is committed to making the real China accessible. The passionate local guides and experienced trip designers are true insiders.

[1] Beijing's cityscape is dominated by modern buildings. **[2]** Guo Pei and a few of the styles that have made her one of China's most popular fashion designers.

- **Under-the-radar museum:** The Poly Art Museum is the first museum operated by a state-owned enterprise in mainland China. Most of its collection was repatriated from abroad, and the artwork includes ancient bronzes, stone carvings, and three ox-head goblets from the Shang Dynasty.

- **Watering hole:** Slow Boat Brewery Taproom is hidden in Dong Si Ba Tiao Hutong in the East District and has the largest selection of craft beer in all of Beijing.

- **Shopping spree:** At Rose Studio, designer Guo Pei has offered unique style and exquisite haute-couture craftsmanship for the past 18 years. It's one of the most favored brands among A-list Chinese female celebrities, including Zhang Ziyi and Fan Bingbing.

- **Urban escape:** Jiuhua's Xiaotangshan Hot Spring is one of China's four major spas. The resort has modern outdoor Jacuzzi hot tubs and indoor pools, and its 104° springwater is said to have healthy effects on the skin.

- **Locals' secret:** Getting lost on the way to Mei Mansion is part of the fun. This elegant hidden courtyard restaurant is decorated with antiques and serves Huaiyang dishes that were once prepared for the great Peking opera star Mei Lanfang. A set menu changes daily and must be ordered in advance.

- **Things to avoid:** The Badaling section of the Great Wall is closest to downtown, so it's where tourists always seem to go. Instead, we suggest they visit the Mutianyu section, which is farther from the city, but it's less crowded and its views are better.

THE **$10,000** DAY

WE ASKED LEWIS LIU TO PLAN A SINGLE, SPECTACULAR DAY IN BEIJING

"Early in the morning, head to the Summer Palace with your private tour guide. Climb the Wan Shou Hill and take a boat ride on Kun Ming Lake. Then enjoy a delectable lunch at Mei Mansion, which is located in an elegant 200-year-old Houhai courtyard, followed by a private Peking opera performance. In the afternoon visit the Forbidden City and take a pedicab to travel around the Hutong neighborhood to get a taste of an old Beijinger's life. Enjoy the best French cuisine at Temple Restaurant, which is housed in an ancient temple. After dinner, take a walk and enjoy the beautiful night view in Houhai. Cap the night off with whiskey or wine at Jia Ding Fang bar, where you can also order snacks and enjoy the live band."

For a longer, interactive version of this story, go to fortune.com/blackbook.

BEIJING: JOSE FUSTE RAGA—CORBIS; GUO PEI: RICHARD BORD—GETTY IMAGES

ILLUSTRATION BY **MARTÍN LAKSMAN**

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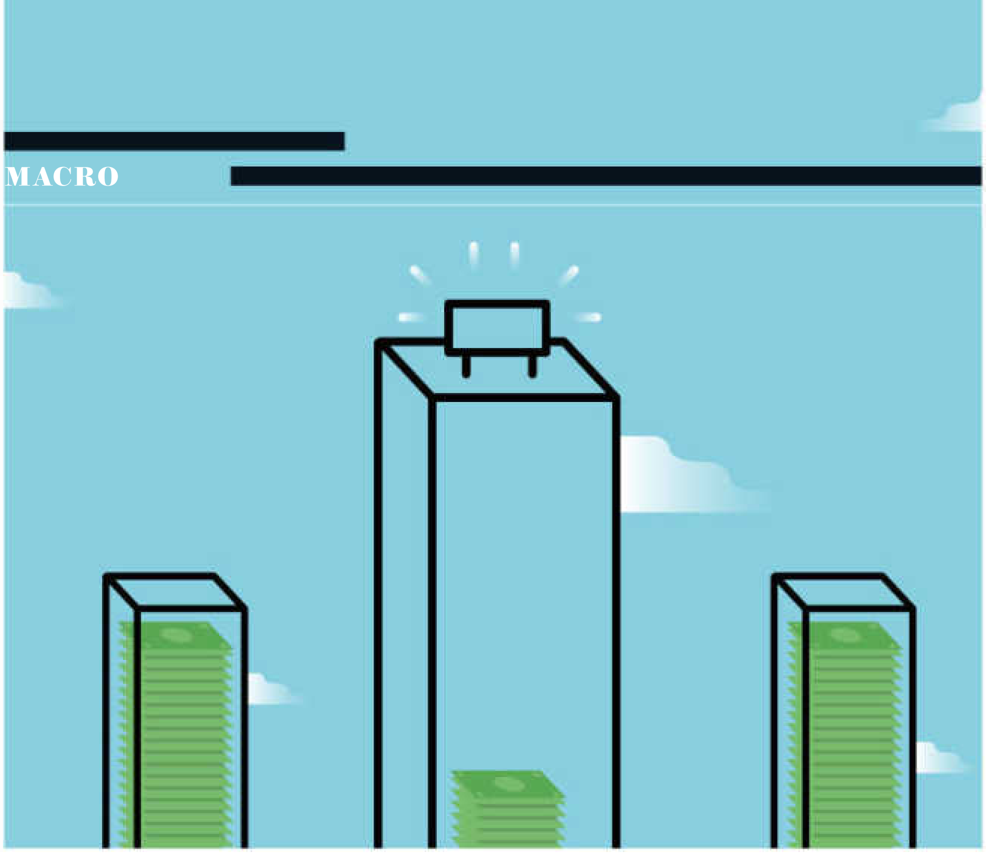

THE 21ST CENTURY CORPORATION

Heavy Hitters Travel Light

GROWING NUMBERS OF THE BEST-PERFORMING COMPANIES ARE "ASSET-LIGHT," ACCOMPLISHING A LOT WITH RELATIVELY LITTLE FINANCIAL OR PHYSICAL CAPITAL.

By Geoff Colvin

CONSIDER WALMART, the leading 20th-century retailer, and Amazon, the leading 21st-century retailer. By one metric they're strikingly similar; their total market value is the same, about $250 billion each, according to consulting firm EVA Dimensions. But by another measure—one that goes to the heart of corporate performance—they're radically different. Walmart needed $154 billion of capital to create that market value. Amazon achieved the same result using only $35 billion of capital.

That contrast illustrates a profound reality: The 21st-century corporation is forming a new relationship to capital. Traditionally defined capital, the financial and physical kind, is losing importance as the economy evolves. Today's best-performing companies—Amazon, Alphabet, Facebook—use little of it relative to their size. Some, such as Uber and Airbnb, use practically none. As the McKinsey Global Institute recently noted, "The most profitable industries ... are asset-light in terms of physical capital."

Even in industries that by their nature seem to demand loads of physical capital, it's becoming less important. For example, industrial-scale digital printers, such as those used by textile and packaging manufacturers, are far smaller and less expensive than the giant lithographic presses they're replacing. Similarly, additive manufacturing machines (3D printers) are smaller, cheaper, and more precise than the casting, forging, and lathing equipment they replace. In energy, as photovoltaic cells produce electricity at costs competitive with conventional power plants, house-size turbines become less necessary.

In addition, technology can make any capital more efficient. Assets such as cars and computer servers have long spent much of their time sitting idle, but Net-based scheduling is now putting that wasted time to use. The result: greater output from a smaller stock of capital.

As the role of traditional capital fades, nontraditional capital, especially the human kind, grows more important. Leaders of the 21st-century corporation will confront the question of whose capital is most valuable. Financiers, the kings of capitalism since it began, may find that mere money buys only a minority stake in today's companies, which will be owned mainly by their most essential employees. That's good news for workers with crucial skills; not so good for others, who increasingly can be replaced by advancing technology. Rising young tech companies routinely lure high-value workers by offering large packages of stock. That practice not only conserves operating cash but also reflects the reality that such companies often need top talent more than they need money from venture capitalists.

The consequences for capital markets could be mind-bending. Thanks to monetary stimulus and high savings rates, the world is awash in financial capital, but increasingly, that isn't what corporations need most.

ILLUSTRATION BY OLIVER MUNDAY

Our mobile expertise let Ducati riders order their perfect bike. And go from daydream to reality faster than ever.
Ducati's legendary motorcycles deserve an equally legendary customer experience. So in just six months, we helped design and implement a new operating model and mobile dealer system. Now dealers around the world can place and track orders, from production to delivery. And customers can order their dream bikes through a highly interactive experience. With dealer satisfaction up 25% and a 7% increase in sales, Ducati is now operating in top gear. That's high performance, delivered.
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Venture

HOW I GOT STARTED

Sosi Setian in her Manhattan office

HOW ONE IMMIGRANT MADE IT BIG IN AMERICA

SOSI SETIAN grew up behind the Iron Curtain and translated language acumen and moxie into success for SOS International.

Interview by Dinah Eng

SOSI SETIAN *was a professor of Armenian studies when she decided to pursue a Ph.D. While supporting herself as a courtroom interpreter, she caught the eye of DEA agents, who asked for help with a money-laundering case. Setian, now 72, parlayed her language skills and work ethic into SOS International, which today produces $200 million in annual revenue from government contracts for translation, intelligence analysis, logistics, and more. Her story:*

I was born and raised in Bulgaria by Armenian parents and grew up under the Communist regime. My father had a textile trading

PHOTOGRAPH BY PATRICK JAMES MILLER

business. Any successful business owner was tagged as a member of the "old bourgeoisie," and the family faced discrimination. My father often referred to the Communists seizing large amounts of money from him. I was not able to go to summer camp with my classmates, and my sister, who graduated from high school with honors, would not have been admitted to university.

We were constantly under scrutiny. My father used to put blankets on the windows to muffle the sound of listening to the Voice of America. In 1959 he made the decision to leave.

We left legally but had to renounce our Bulgarian citizenship and were not allowed to take any currency. We went to Beirut, which was the only country at the time that would accept Armenian immigrants from countries behind the Iron Curtain without any documents. We lived there for two years, waiting for our turn to come to the United States. In 1961 we came to the U.S. on the Fourth of July, so it's a holiday that's extremely meaningful to me.

I was 18 and had married an Armenian American I'd gone to high school with in Beirut. He decided to show me the U.S., so we took a bus to California, where we settled with his mom. In 1962, I gave birth to my daughter, Pandora. I was determined to go to school because my father's biggest wish was for me to go to college.

I spoke Armenian, Bulgarian, French, and Russian—I didn't understand English. But I studied and listened to a lot of TV, and after a few months was able to speak it. I graduated from UCLA with a double major in Russian and French. Then we moved to Paris and Cairo, where my husband and I were Ford Foundation Fellows.

Over the next few years our lives were adventurous but also tiring, as we moved around and I gave birth to my son, Julian. My husband and I were teaching English at the American University of Beirut when civil war broke out in 1975. I decided I couldn't move from country to country anymore, so we separated and later divorced.

In 1976, I came back to the U.S. with my two kids. I eventually worked as a professor in Armenian studies and as assistant to the dean of arts and sciences at Columbia University. When I decided to go back to school for a Ph.D. in cultural anthropology, I received a $7,000 stipend and started working for the New York City courts as a simultaneous interpreter to support Julian, my ailing mother, and myself.

Soon after, two agents from the DEA asked me to translate a tape from Armenian. I did it on my lunch hour and refused to be paid because I was there anyway. The agents were shocked and asked if I'd be interested in working directly for the DEA as an interpreter.

I took a full-time job, working 12 to 15 hours a day on a money-laundering case where narcotics were brought in from the Middle East and the money launderers were Armenians. I listened to wiretaps, transcribed, and analyzed the calls. I loved the job and felt like I was playing a role in putting bad guys behind bars. They paid me $1,500 a week. I didn't see the sun for eight months and forged very important relationships.

When the case ended, I was back to square one and had to figure out what to do. I couldn't go back to academia because I'd never make enough to support my family. The DEA agents encouraged me to start my own company, so in 1989, I registered the name SOS International, got business cards printed, and started working out of my home.

At first, 85% of our work came from the New York field division of the DEA, along with some cases from the FBI and Customs and Immigration. For the first seven years I didn't take a day off or pay myself a salary. But in 1994, I incorporated and started paying myself.

When my son, Julian, graduated from college, he joined the company and decided we needed to expand and diversify. So we opened our first offices in New York and in Virginia, outside D.C. Up until then, we had been working out of my home.

Prior to 9/11, SOSI had not attracted much attention. But 9/11 made it apparent that the U.S. government had a shortage of qualified foreign-language experts. In 2002, Bersoff Technology Group asked us to partner with them on a small contract with the U.S. Army to provide linguists. That $10 million contract ballooned into a much bigger contract.

As the Army needed more personnel, we began hiring hundreds of interpreters, and that became our central business for three years. We then diversified into IT, data analysis, engineering, construction, and logistics. We went from $3 million to $50 million in sales in 24 months. The expansion came with enormous risk, given the capital needed to grow. Today annual revenue has grown to $200 million. We're housing and feeding nearly 3,000 U.S. military personnel in the Middle East and have interpreters in courts nationwide.

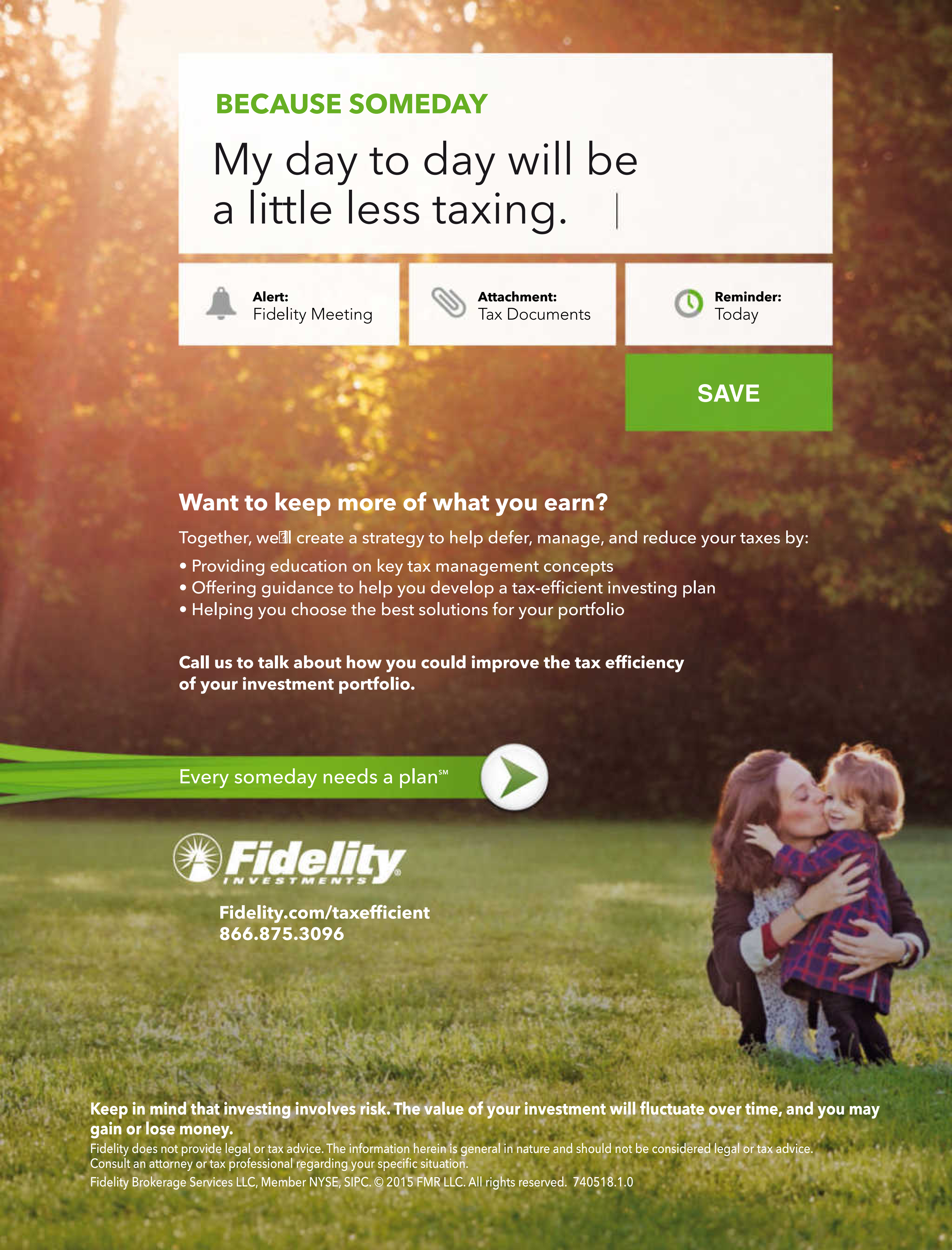
I succeed because I accept challenges others may not, and I'm not afraid to take risks. More than anything, I'm proud that we've played an important role in supporting the national security objectives of the country I came to as an immigrant.

GIVE LOYALTY, GET LOYALTY

SOSI SETIAN explains how she has kept talented employees.

Early on, my competitors were three women who each ran their own companies. The DEA had enough work for all four companies. The other three would hire contract workers, since you weren't sure when you'd get another case. But I wanted people to feel secure, so I made them employees and gave them benefits. I paid my interpreters better than the others and would bring them to my house for dinners once a month.

When the government shut down twice in 1995, we were told we could continue working at our own risk. I couldn't stand passing my hardship on to my employees, so I took out a $40,000 loan and split the money with the employees to keep us afloat and to signal that I valued everyone. To this day they remain loyal.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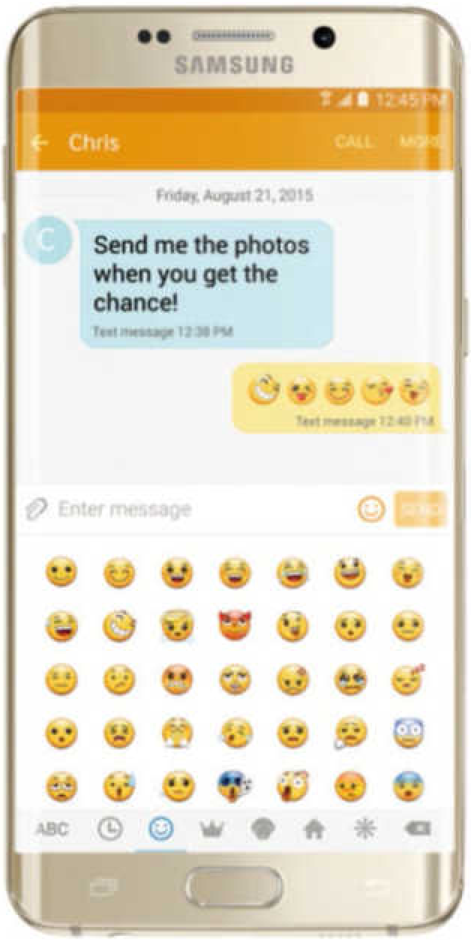

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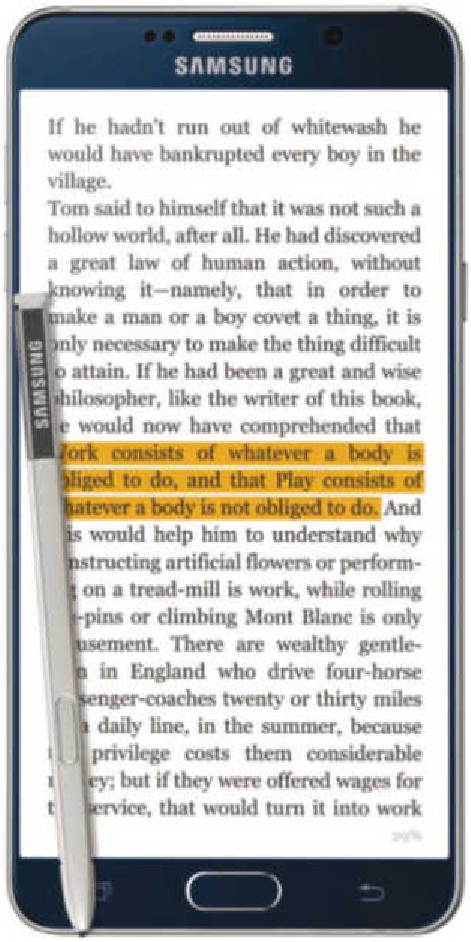
Galaxy S6 edge+

BOOK.



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Galaxy Note5

Choosing between the beautiful Galaxy S6 edge+ with over 3.6 million pixels on the largest-ever dual edge display and the powerful Galaxy Note5 with Multi Window and the most advanced S Pen yet is a textbook case of a no-brainer. You're right either way.

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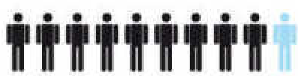
Tech

PERSON OF INTEREST

April Underwood / Slack

AGE: 35 FROM: Arlington, Texas NO SLACKER: As vice president of product, Underwood aims to turn Slack's popular messaging software into a destination for workplace collaboration. "For any fire drill that takes place. Any new opportunity." PICK UP THE SLACK: At Underwood's behest, Slack is investing $80 million in third-party apps that complement its technology. One example? Awesome, an app that summarizes chat threads so people don't miss updates. SLACK-JAWED: Underwood's résumé includes Google, Travelocity, Twitter, and all-female investor group #Angels. "I fell in love with Slack for personal reasons. They were working on a problem I was passionate about—information overload in the workplace." FROM STATS TO CHATS: Underwood's first childhood software project: a catalogue for her baseball cards. CUT HER SOME ...: When she loses perspective, Underwood unfurls her yoga mat. "It helps me maintain equilibrium." —*Heather Clancy*

TICKER TAPE
A collection of curiosities



9 IN 10
PEOPLE IN THEIR TWENTIES WHO USE TWO OR MORE DEVICES AT ONCE
SOURCE: THE VISION COUNCIL

PHOTOGRAPH BY MARTIN KLIMEK

With the average U.S. farm at 434 acres, drones are a boon to overstretched farmers.

Grapes of Math

WHAT GOES INTO A GREAT BOTTLE OF WINE? SENSORS, SOFTWARE, AND SCADS OF DATA ANALYSIS. OH, AND DRONES, OF COURSE.

By Andrew Zaleski

ONE DAY LAST FALL, a drone lazily circled above Hahn Estate Winery, home to 1,100 acres of grapes in California's Santa Lucia Highlands.

The drone, a five-pound model airplane, wasn't there merely to take photos. Fitted with visual and multispectral sensors, it was collecting various kinds of data—information to help Hahn monitor the health of its vineyard and resist the effects of California's fourth consecutive year of drought.

Winegrowers worry about two things: the quality of their grapes and how many they can produce. By running software algorithms made for monitoring crops, a drone can help the winery determine both. Welcome to the connected agriculture business. Yes, even the Internet of things has gone farm to table.

In November, Hahn volunteered a patch of its vineyard to test the concept. It teamed up with PrecisionHawk, a Raleigh, N.C., company specializing in drones and aerial data analysis, and Verizon, which developed an agricultural technology platform to synthesize and analyze crop data. Aerial data from PrecisionHawk's drone let the winery infer canopy cover, an indicator of crop vigor, while ground sensors installed by Verizon monitored temperature and soil moisture.

"All of that data goes into the platform, which runs it against our analytics engine, which looks for patterns and anomalies to make recommendations," says Mark Bartolomeo, who leads Verizon's IoT Connected Solutions division. "The idea is, if you're the farmer, it shows exactly what you should do."

PrecisionHawk and Verizon are just two of the companies working to develop technology to help farmers harvest more efficiently. Farmers don't have the time or resources to keep an eye on thousands of acres of crops, says PrecisionHawk chief operating officer Pat Lohman. That's where tech comes in. "There's a lot of value in a solution that constantly monitors when things are going wrong."

Hahn can attest to that. "We're getting a clearer picture of what's going on at the vineyard," says Andy Mitchell, Hahn's director of viticulture. "We want to apply this to all of our acres."

PrecisionHawk analyzes crops in several ways. Multispectral imagery (left) detects anomalies unseen by the unaided eye; a field uniformity algorithm (right) helps quantify the relative density and health of vegetation.

"WE'RE AT THE START OF A GLOBAL REVOLUTION."

*Netflix CEO **Reed Hastings,** who expanded service to 130 new countries overnight*

CES 2016 KEYNOTE

TOP: COURTESY OF PRECISIONHAWK; BOTTOM: COURTESY OF HAHN VINEYARDS (2); HASTINGS: JACOPO RAULE—GETTY IMAGES


See risk as a path to growth
The right combination unlocks hidden value
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Show and Tell

MASTERCARD'S MARKETING-FOCUSED COMMAND CENTER TAKES "SEEING IS BELIEVING" TO THE EXTREME. *By Heather Clancy*

FOR HOURS EACH DAY, members of MasterCard's marketing team huddle in an open-plan office and watch money disappear before their very eyes.

Not literally, of course. At the company's Purchase, N.Y., headquarters, product managers gaze at a 40-foot display that broadcasts feeds, visualizations, and performance metrics for more than 60 markets. When they want to dive deeper into the data, they retreat to Insights Alley, a clutch of casual lounges with 55-inch touch screens. And when they want to watch narratives unfold, they visit the Real-Time Marketing Lab, where eight more displays—nearly an entire wall's worth—highlight trending stories from services like NewsWhip's Spike and analysis from sources such as Prime Research.

The official name of this elaborate array of tools, as well as the space in which they're housed, is the Conversation Suite. MasterCard began the experiment four years ago to create a "single source of truth" for optimizing its multimillion-dollar advertising budget. (The company doesn't disclose the amount, but estimates put annual global spending at around $250 million.)

MasterCard's marketing team says the hub gives it better access to data without having to coax reports out of its advertising partners, which enables it to act more quickly. The suite also reveals which messages are most effective, helping the team avoid spending money to create videos, slogans, or images that aren't working. (Software from fast-rising startups Percolate and Domo powers the system.)

"One of the biggest benefits of these emerging technologies is the opportunity for brands to shift from storytelling to storymaking," says Raja Rajamannar, MasterCard's chief marketing officer. "To evolve from passive engagements to more active and meaningful ones."

The idea of a command center to track marketing spending in real time is still novel, though other *Fortune* 500 companies (Cisco, PepsiCo, Salesforce) have experimented with it. The suite has already paid dividends for MasterCard: During the 2015 Rugby World Cup, it discovered that its Apple Pay promotions were reaching more prospects on social media than on the web and diverted funds accordingly.

With such technology "we don't need a statistician to help us analyze data," Rajamannar says. Indeed—just their own two eyes.

MasterCard workers monitor marketing campaigns inside the company's Conversation Suite.

COURTESY OF MASTERCARD

2015 EMERGING-MARKETS GROWTH / **2016** CONNECTIVITY AND DIGITIZATION

Most important trend cited by auto executives

SOURCE: KPMG

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One System to Rule Them All

TO KEEP PRODUCTION LINES RUNNING WITHOUT INTERRUPTION, GENERAL MOTORS LINKS ITS FACTORY ROBOTS IN THE CLOUD. *By Jonathan Vanian*

A Fanuc R-2000iC robot spot-welding the body of a truck

COURTESY OF FANUC

FOR YEARS, ROBOTS AT General Motors' Lake Orion manufacturing plant, located 30 miles north of Detroit, have hustled on the factory floor. They lift the frames of vehicles (like the Buick Verano and soon the Chevrolet Bolt EV) with Herculean strength, melt together metals with powerful welding guns, and apply paint in ways that would make a graffiti artist proud.

It's an impressive display of coordination, what with 800 robots on the floor. But a bot that suddenly breaks down could cause disaster down the line, halting production and wasting money as workers scramble to troubleshoot the issue.

Working with Japanese robotics manufacturer Fanuc, networking giant Cisco, and hardware maker Rockwell Automation, GM has installed in its Lake Orion plant a sort of "mother brain" to which all its robots can connect—and it's all built on cloud computing.

The system ingests data flowing to and from robots as well as external devices, like conveyor-belt machines and temperature systems. It sends that information to a cloud network set up by Cisco. There, Fanuc runs algorithms tailored to the factory robots. The result? Insights that plant managers and Fanuc staff can tap to avoid mishaps—everything from detecting when a robot's arm is about to fail to determining if there's too much humidity in the room (which can adversely affect paint jobs).

"The robot calls in and says, 'I've got an issue in one of my motors in one of my joints,'" says Scott Whybrew, who directs global manufacturing engineering at GM. "Or it may say it's about to get sick in a few seconds."

The benefits of that visibility extend beyond near disasters. GM also uses the system to adjust planned maintenance schedules for the machines. "It gives us, as a robotics supplier, the ability to look over their shoulder and help and guide them," says Rick Schneider, president of Fanuc America.

In the past GM's workers discovered issues only during production downtime and when physically plugged into a factory robot. Now all they have to do is wait for an alert to show up.

"We can put the dollars to use for some other business objective," Whybrew says, "instead of sitting there waiting for a robot to go down."

60% FEMALE TECH EXECUTIVES WHO HAVE RECEIVED UNWANTED SEXUAL ADVANCES →

2016 ELEPHANT IN THE VALLEY SURVEY


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WHEN THE WHEELS FALL OFF

The problem with trendy e-commerce businesses? They go out of style.

By Erin Griffith

IT'S HARD to name a category of startups that has struggled to produce big, billion-dollar exits more than e-commerce. Competing with Amazon isn't easy, it turns out, and aspiring Davids have turned to ever more novel strategies to differentiate themselves from Goliath. The problem? Like anything trendy, each new twist on the e-commerce model eventually goes out of style.

Perhaps you remember the great subscription commerce wave of 2012—as I called it, stuff-in-a-box. It was a clever way to score recurring revenue by sending subscribers a container of curated stuff they didn't even know they wanted. It didn't take long for each new stuff-in-a-box startup to feel increasingly ridiculous: subscription perfumes, dog toys, cured meats, even stilettos hawked by Kim Kardashian. Investors quickly realized the model was little more than a 21st-century twist on the Jam of the Month club, and the subsequent shakeout, marked by mergers, shutdowns, and pivots, happened quietly.

After subscription commerce came "content and commerce," a trend that peaked so fast it's more of a blip than a full-fledged fad. The idea—tacking an editorial operation onto a store—failed to increase profits for most startups, and last year the leader of the pack, Thrillist, split its e-commerce and media businesses. Founder Ben Lerer conceded to technology website Recode that it was "not the most productive" for the two to share resources.

Lately the hottest thing in e-commerce is "ClassPass for X," a trend that combines monthly subscription fees with experiences. (Millennials love experiences, I'm told.) It follows the success of ClassPass, a well-funded startup that sells unlimited fitness classes at participating studios for about $100 a month. There is already a ClassPass for hair blowouts (Vive; $65 per month), massages (Zeel's Zeelot program; cost varies), and live music (Jukely; $25 per month). It's too soon to call this new model a fad, but if past e-commerce innovations are any indication, it may not be long for this world.

All of these recent e-commerce models are descendants of the mother of all retail fads: flash sales. With the January acquisition of Gilt Groupe at a painfully low price—it raised $280 million but sold for just $250 million—the model has finally croaked. Flash sales (and its cousin, daily deals) suffered from oversaturation. Copycats drove up the price of acquiring customers, which accelerated startups' burn rates, and prompted shopper "deal fatigue." When it became clear in 2012 that Groupon and Gilt would not live up to their soaring expectations, copycats pivoted away from the model. But instead of focusing on the fundamentals (supply-chain management, say, or customer service), many of them simply latched onto the next hot strategy.

With such carnage, it's puzzling that so many e-commerce entrepreneurs continue to chase buzzy new business models. But the explanation is simple: As long as there's an Amazon, there will be e-commerce fads. The Jeff Bezos–led behemoth has already won on price, selection, and service. All that leaves is novelty.

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WIND POWER PICKS UP SPEED

IMPROVED TECHNOLOGY, FALLING PRICES, AND POLITICAL SENTIMENT ARE GALE-STRENGTH FORCES.

VISITORS TO THE CALIFORNIA RESORT TOWN of Palm Springs golf, hike, sunbathe—and take the "windmill tour" through the San Gorgonio Pass north of the city, where more than 4,000 turbines sprawl across the desert at one of the nation's oldest wind farms.

But wind power is no mere curiosity. Wind accounted for a third of all new U.S. energy installations in the last eight years and now supplies about 5% of the country's total electricity demand—more than solar, and enough to power about 18 million homes, according to a report released last August by the U.S. Department of Energy (DOE). Wind has also created 73,000 jobs and generated $100 billion in investment, including purchasing agreements by Google and Microsoft.

Now wind is set to come on stronger than ever, as Congress voted in December to extend the production tax credit (PTC) and investment tax credit (ITC) that in recent years have boosted capacity and sharply reduced costs to as little as $.025/kilowatt-hour in some areas.

"What it says to me is that the wind industry is here to stay," says John Kostyack, executive director of the nonprofit Wind Energy Foundation, which promotes business leadership around wind energy. "The linkage of the wind industry to manufacturing in this country is pretty strong," he adds; this connection provides much-needed predictability about growth patterns. "We can get to scale all across the country very rapidly."

Produced in 43 states, with Texas leading the way, wind energy is capable of churning out 35% of America's electric generation by 2050, while cutting the electricity sector's carbon emissions by 23%, according to a March 2015 DOE report. The report dismissed the need for disruptive technology in propelling wind's further success—but did emphasize the importance of improved technology to continue to put downward pressure on prices.

"Turbines are fairly simple machines," explains Kevin George, renewable energy business development manager at SKF USA Inc., which specializes in rolling bearings and related technologies; he has been serving the wind industry in this company since the mid-2000s. "But as turbines get older, we're learning a lot more about them. The big issue now is not just how to design more robust drivetrain components so they're more reliable, but also how to bring operation and maintenance expenses down. From a technological perspective, we're working on getting to 25 years of trouble-free operation."

The company's emphasis on lifecycle management includes providing sophisticated condition-monitoring systems for its bearings and other components of turbines, which are becoming more powerful as they get larger. SKF will soon develop further technologies at a large bearing test facility it is installing in Germany to recreate turbine operating conditions.

Wind is part of the company's overall commitment to renewables, which it calls its BeyondZero portfolio. "We hope to be not just carbon neutral, but beyond that," says George. "I see good things on the horizon."

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SKF Life Cycle Management is a proven approach to maximizing machine productivity and minimizing total cost of ownership over every stage, from specification and design to operation and maintenance. Importantly, the knowledge gained from end user stages is fed back into this continuous improvement loop to benefit next generation assets.

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Invest

HOSPITALITY STOCKS

HOTEL STOCKS WITH STAYING POWER

China's slowdown and the rise of Airbnb have spooked hotel investors. But smart strategies and new amenities should help some chains bounce back.

By Chris Taylor

FOR THE HOTEL INDUSTRY, the past year has been bad enough to make shareholders want to empty the minibar.

In 2015, while the S&P 500 was essentially flat, the widely followed Baird/STR index of 41 hotel stocks fell a grizzly-bearish 20.1%. The hospitality-suite rout continued in the early weeks of this year, with the stocks of several hotel chains dropping by 10% or more.

But here's the confounding thing: The stocks plummeted even as the industry posted all-time highs for occupancy rates and revenue per available room, or RevPAR. "We've been breaking records," says Jan Freitag, senior vice president

The bar and lounge at the Andaz Maui at Wailea Resort, one of a relatively new line of boutique hotels opened by Hyatt

COURTESY OF HYATT

at travel-research company STR. “And we’re going to continue to break records.” Indeed, Freitag and many money managers believe the disconnect between market sentiment and the industry’s fundamentals has become a chasm—creating an opportunity for bargain hunters.

The bears’ pessimism isn’t unfounded. Hotel revenue growth has begun to decelerate after a long positive cycle. STR projects that RevPAR, which now stands at about $80, will grow 5.7% in 2016, down from 6.5% in 2015 and a sizzling 8.1% in 2014. As in other industries whose shares have looked shaky of late, you can pin some of the blame on China’s slowdown, since Chinese leisure and business travelers have become major revenue drivers. “Markets like New York, San Francisco, Los Angeles, and Miami could see softness because of slower growth from the Chinese consumer,” says Chad Beynon, senior lodging analyst at Macquarie Capital.

The industry also faces a lingering, low-level panic about Airbnb and what the home-rental business will mean for the sector—particularly in the battle for millennial loyalties. Investors “think Airbnb will do to hotels what Uber did to taxis,” says David Loeb, managing director for investment managers Robert W. Baird. “But it’s just not a fair analogy.” If anything, he argues, the data suggest

INVESTORS CHECK OUT

Hotel revenue growth soared in 2014, but a subsequent slowdown has sent stocks tumbling.

that hotels and Airbnb can peacefully coexist. Even as Airbnb surged in 2015—the company estimates that its network housed 40 million guests, double the number from 2014, in 34,000 cities—hotels scored a record-breaking year of their own. In November, the most recent month for which numbers are available, occupancy rates hit an unprecedented 66.7%, while average room rates topped $120 for the first time.

Beynon sees occupancy levels staying high through 2016 and beyond, “thanks to corporate profits, convention calendars, and leisure travel fueled by baby boomers”—business segments where Airbnb’s impact hasn’t been as great. Bullish investors also say hotels are finally benefiting from their decades-long effort to create hipper, boutique subsidiaries. Examples include the W and Aloft units of Starwood Hotels & Resorts, Hyatt’s Andaz chain, and Hilton Worldwide Holdings’ Canopy and Curio. These boutiques’ trendier on-site bars and restaurants and locally inspired design appeal to travelers put off by the cookie-cutter feel of larger chains—especially millennials, whose financial clout will mushroom in years to come.

Overall, the hotel industry’s anticipated revenue growth for this year is expected to outpace the 4% to 5% that analysts foresee for the entire S&P 500. The broader slowdown in hospitality will continue to hurt some stocks. But value investors say others are well suited for a rebound from today’s lows. One favorite: **Extended Stay America,** which offers longer-term lodging options at its nearly 700 hotels. With its low room rates and fully equipped kitchens, the chain has plenty of ammunition for any war with Airbnb, and isn’t heavily reliant on Chinese travelers. “They don’t do franchising, so every hotel is theirs,” boosting the parent company’s revenue, says Loeb. He credits Extended Stay’s management with an impressive turnaround, but the stock still trades at a modest 13 times expected 2016 earnings. Macquarie’s 2016 estimates of the chain’s RevPAR growth: a whopping 10.9%.

Beynon favors **Hilton,** a $12 billion giant that Macquarie recently upgraded to “outperform” with a $30 price target, up from its current $18. Hilton has the industry’s largest pipeline of new rooms hitting the market, according to Beynon, who also likes the company’s recently initiated dividend and share-buyback program. Hilton’s projected revenue growth for 2016 is a healthy 6.2%. One potential catalyst to goose the stock: The imminent launch of a yet-to-be-named mid-scale brand, which has generated major industry buzz.

The elephant in an investor’s hotel room: the Starwood-Marriott merger, which has been signed but isn’t yet closed. The $12.2 billion deal would create the largest hotel company in the world, with 1.1 million rooms in 5,500 properties, and would certainly increase competitive pressure on other chains.

But Beynon points out that the aftershocks of that earthquake may actually benefit shareholders of Hilton. Assuming that current S&P 500 component Starwood gets swallowed up, many analysts think Hilton will take its place in the index. That tends to be positive for any stock, since it leads more institutional investors to automatically buy its shares. Beynon says Hilton is “the most attractive name in lodging right now.” Given how oversold the industry is, now could be a good time for investors to book a room. F

GRAPHIC SOURCE: STR


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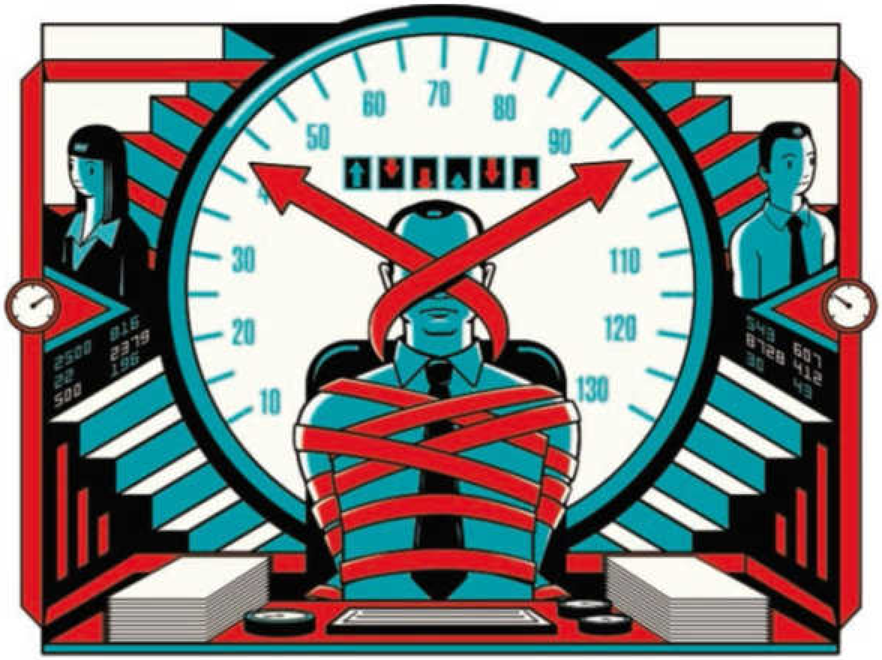

Revving Up Your Corporate RPMs

IF THIS IS TRULY THE AGE OF DISRUPTION, WHY IS BUSINESS DECISION-MAKING SLOWING DOWN? *By Tom Monahan*

IF YOU WERE to judge the current corporate era solely on the basis of business jargon, you would think we're in a time of hyperspeed change. Silicon Valley gurus talk rapturously about "failing fast," and words like "agility" and "acceleration" dot the titles of seemingly dozens of popular business books. But look closely at how things truly work in most organizations today, and "speed" and "agility" are likely to be the last adjectives that pop to mind.

Across my travels, I get to talk to hundreds of top managers at the world's largest companies, and they share a common complaint: "It's just so hard to get stuff done." Such bureaucratic frustrations probably date back to the Medicis. But at CEB we've collected a wealth of data that indicates a clear and troubling reality: Most business activity is slowing down, not accelerating. In benchmarking the speed of key processes across the corporate sector, we find again and again that decision-making at even the most basic level has slowed materially over the past five to 10 years. A few examples from our research illustrate this trend.

Hiring a new employee, for instance, now takes 63 days, up from 42 in 2010, according to a 2015 study we did with 400 corporate recruiters. Meanwhile the average time to deliver an office IT project increased by more than a month from 2010 to 2015, and now stands at over 10 months from start to delivery—this particular nugget coming from a study we conducted with 2,000 project managers at more than 60 global organizations.

And when companies need to mesh processes, things get even slower. Multiple surveys we did with several thousand stakeholders in the realm of business-to-business sales revealed some striking evidence of institutional delay. The time required for one company to sell something to another, for example, has risen 22% in the past five years, as gaining consensus from one or two buyers has turned into five or more.

The larger existential threat of this slowdown is well documented—sclerotic decision-making exposes companies to disruptive threats from more nimble rivals. And companies with hyperquick corporate clock speeds—including notables like Facebook, Amazon, and Google—have already begun that feverish disruption across a number of sectors, as we all know.

ILLUSTRATION BY ANDRAS BARANYAI

But even where survival may not be threatened, the cost of all this paper shuffling and indecision can still be substantial. An entry-level position that goes vacant beyond its planned fill time, for instance, costs a company more than $400 a day, our research shows. And while, on average, every month of delay in a moderately or highly complex IT project translates to about $43,000 in costs, that figure can be many times greater for the most complex projects in the portfolio.

Given the obsession with speed, the cost of delay, and the frustration of leaders, why are companies so slow?

Let's start with the obvious: Companies are bigger. After adjusting for inflation, the 500th-ranked company in the *Fortune* 500 is nearly five times bigger in terms of revenue than it was in 1990.

Less obvious has been the growth of control and risk-management functions, which too often are poorly coordinated. The bulking up of corporate procurement staff has now been matched by a proliferation of new tasks in the areas of compliance, privacy, and data protection—which have more than doubled since the recession, CEB found. In other recent research, we looked at enterprise risk management and found a ninefold increase in the number of different ERM functions over the past 10 years.

So, too—and with no shortage of irony, perhaps—the rise of "transformation" as a corporate mantra has helped pump the brakes. If the country store of old took a pause from business because the proprietor had "gone fishin'," the modern one often enters a state of near paralysis because it has "gone transformin'." Interestingly, arcane accounting rules help encourage this phenomenon by making it cheaper for companies to take on massive, multiyear improvement efforts rather than prioritize specific changes.

Finally, you can blame technology too—or the misuse of it, really. Everyone who has ever been one of more than 10 people copied on an email knows that the ease of collaboration has a dark side. And the rise of collaborative tools—along with an increasing reliance on peers rather than direct supervisors (a holdover from management culls during the recession)—has created an environment in which 60% of employees must consult with at least 10 colleagues each day just to get their jobs done. Scarier, half of that 60% need to engage more than 20 to do their work, based on responses from a CEB workplace survey of over 23,000 employees.

So what's the right way to speed up? The answer is not for executives to resist collaboration and make more unilateral decisions. But collaboration and risk management don't have to come at the expense of speed.

When it comes to bringing in new talent, for example, managers at Providence Health & Services, a Western U.S. hospital chain, are encouraged to get leads and other feedback on potential candidates from a broad range of people within the company. But Providence has nonetheless managed to streamline its hiring process with a pretty simple fix: limiting the number of in-person interviews to just those managers who will be working closely with the candidate. That has helped the company reduce the number of personnel required to make a hiring decision by 40% and significantly accelerated time to hire without any reduction in quality.

In other cases, revving up the organization requires a more sweeping cultural change across a company. That's what it often takes, our experience shows, when it comes to hyperspeeding corporate IT departments—and, importantly, improving their communication with nontechnical colleagues. Open-source software pioneer Red Hat, for example, has sped up its own internal processes in various ways—first, by making sure its IT team uses everyday language rather than technical jargon when discussing projects; and second, by mapping out project "handoffs" between work teams. The latter has helped the company clarify who depends on whom to advance a project and helped team members collectively zero in on the most common sources of delay.

(In full disclosure, Providence Health & Services and Red Hat have participated in CEB's Leadership Council programs.)

It would be foolish to suggest that the root causes of our current business slowdown—greater scale and greater focus on risk management—are in and of themselves bad things. Hardly. But leaders do need to design organizations and processes to take into account—and offset—the various choke points that technology and organizational evolution have created. Even at the largest and most traditional corporations, collaboration and streamlining don't have to be at odds.

Tom Monahan is chairman and CEO of CEB, a best-practice insight and technology company headquartered in Arlington, Va.

MORE TIME ON HOLD

With each month of inertia and delay, companies increase their IT spending—and get nothing for it.

GRAPHIC SOURCE: CEB

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GOLF

Making It in the New Hollywood

DON'T LET OSCAR BUZZ AND BOX-OFFICE RECORDS FOOL YOU: THE MOVIE INDUSTRY IS UNDERGOING A DIFFICULT TRANSITION. HERE'S HOW IT CAN SURVIVE—AND THRIVE.

By Michal Lev-Ram

IMAGINE THIS SCENE: A group of aliens, pursuing their lifelong dream of making a movie, descend on Tinseltown. Their first stop? The majors, a.k.a. studios like the Walt Disney Co., 20th Century Fox, and Comcast's Universal—the deep-pocketed creative forces behind Hollywood's biggest blockbusters.

"We've got a great idea," the extraterrestrials tell the respective studio heads. "It's a movie about a hodgepodge team of space fighters trying to save the galaxy from an evil army!"

Disney passes because, well, it's got Star Wars. But the

JASON BOLAND—COPYRIGHT WARNER BROS./EVERETT COLLECTION

2015's *Mad Max: Fury Road* succeeded both at the box office ($376 million globally) and with Oscar voters (10 nominations).

other majors pass too. "Is it a sequel?" they ask. And upon hearing that it is not: "Have you considered independent financing?"

The interstellar visitors ask around, then hit up the financing divisions of major talent agencies, smaller independent studios, and even high-net-worth individuals. But they are met with skepticism at every turn. "How will your movie perform in China?" prospective funders ask them.

That stumps the aliens again. In desperation, they fly their spaceship north to Silicon Valley, where, they've been told, you can get money for just about anything. "We will make your movie," the heads of a new production empire called Netflix tell them. "We will split it into 10 episodes and release them all at once, and we will give you $60 million." As the aliens high-six one another, an exec adds, "But it won't be a movie: It'll be 'must-watch television.'"

Unless you live in outer space, you know that the movie industry is undergoing massive change. In the U.S., edgy cable series and binge-worthy streaming shows have become most consumers' must-sees—fodder for water-cooler talk and digressions on social media. Meanwhile, to build a global audience as its domestic one wanes, Hollywood has zeroed in on mega-sequels and remakes, flicks so big and recognizable that audiences can't ignore them.

For now, the formula is paying off. Hit sequels like *Jurassic World* and *Star Wars: The Force Awakens* helped push Hollywood's global box office to a record $38 billion in 2015. But the industry faces troubling trends: It's struggling to produce human-scale movies that break the action-sequel mold—and when it does make them, they often don't make money. "There were a bunch of movies last year ... that just didn't catch on in the sea of big franchises," says Paul Dergarabedian, senior analyst with box-office research firm Rentrak. Compared to a decade ago, fewer people are going to the movies, and if the remaining audience loses its taste for the big franchises, the industry could face a painful fall.

As Oscar season shines its annual spotlight on the tension between art and profit, it's a good time to look at the business models that are on the rise in Hollywood—and to offer a preview of how they'll play out in years to come.

MURRAY CLOSE—COPYRIGHT 2015 STX ENTERTAINMENT, ALL RIGHTS RESERVED

On the set of *Free State of Jones*, an upcoming release from newcomer studio STX Entertainment

1 INDEPENDENTS' DAY

THE FILM business is insanity," Matthew Vaughn, a British director and producer, says on a call from his home base in London. "I've done good by doing it my way."

"Doing it your way" means bypassing Hollywood's studio system to finance film production—but then using its distribution muscle when it's time for theatrical release. Independent directors and producers aim to be asset-light: Unlike major studios, they don't need to own production lots or employ ranks of full-time administrative staff. They can finance films project by project. And that can give them the flexibility to make a profit on films that don't fit a blockbuster formula.

Vaughn, whose curriculum vitae includes 2000's *Snatch*

and 2015's *Kingsman: The Secret Service*, has built a stable of financiers and a longstanding distribution relationship with 20th Century Fox. *Kingsman*, a tongue-in-cheek spy thriller about a secret organization that recruits a young street kid, was no stereotypical indie film—it had a star-laden cast (Colin Firth, Samuel L. Jackson) and Bond-like, whizbang weaponry. But by relying on his slate of investors to fund the movie's production, Vaughn, who co-wrote, directed, and produced the film, kept the budget to a relatively modest $81 million. Fox took it from there with distribution, and it went on to gross more than $414 million globally.

A team of independent financiers isn't easy to come by, of course. But as the majors have turned their attention to mega-sequels, some investors have flocked to fill the void. "It used to be that we'd have a project and need to actively source financing," essentially going hat in hand to investors, says Roeg Sutherland, co-head of Creative Artists Agency's film finance and sales group, which focuses on films with budgets of $15 million to $60 million (including recent successes *Birdman* and *Sicario*). "Now there is more money in the marketplace than there are projects."

STX Entertainment, a new studio that also aims to fill the gap left by the majors, funded recent releases like *The Gift*, a profitable 2015 summer thriller, by inking a mix of sales of its equity and "slate financing" deals—in which investors put money into a grouping of movies and then receive a cut of their profit. The combined funding translates to about $1 billion per year at STX's disposal, enough to develop and distribute 12 to 15 movies annually. Its equity investors include private equity firms TPG Growth and Hony Capital (Hony is based in China), plus such wealthy individuals as William "Beau" Wrigley and Gigi Pritzker. For slate financing, it enlisted Huayi Brothers Media, a Chinese film-production company. If you're noticing a trend here—China and Hollywood working together—you're onto something. See the section above.

2

TOY STORY MEETS THE CHINA SYNDROME

IN MID-DECEMBER, fans camped out for days along Hollywood Boulevard for the world premiere of Disney's *Star Wars: The Force Awakens*. U.S. and Canadian moviegoers bought more than $100 million worth of advance tickets—obliterating records for movie presales. Still, as frenzied as this North American box-office demand has been, the real action—in the form of even higher revenue and profit margins—is unfolding elsewhere.

Star Wars–themed merchandising (from remote-controlled BB-8 droids to Kylo Ren's red lightsaber) could bring in $6 billion this year, according to Goldman Sachs entertainment analyst Drew Borst. Licensing income from this kind of intellectual-property mining—think Happy Meal toys, T-shirts, and tie-ins with theme parks—is almost pure profit for the studios.

And the Best-Investment Oscar Goes to…

MARKETING COSTS AND OPAQUE ACCOUNTING CAN MAKE IT HARD TO TELL WHETHER HOT-TICKET MOVIES ARE PROFITABLE. HERE'S OUR TAKE ON WHICH 2016 BEST PICTURE NOMINEES ARE MAKING THEIR FINANCIAL BACKERS HAPPY.

CASHING IN

The Big Short

• Adam McKay's dark-comedy account of the U.S. financial crisis actually made more money internationally than in the U.S. the week after Oscar nominations were announced.

GLOBAL BOX OFFICE: $70 MILLION

Bridge of Spies

• Steven Spielberg's moody Cold War drama, made for about $40 million, has earned more than $50 million in Western Europe—and around $2 million in Russia. Détente, anyone?

GLOBAL BOX OFFICE: $157 MILLION

Mad Max: Fury Road

• The vehicular-mayhem adventure, which had a budget of $150 million, pulled in $222 million outside the U.S.—despite not having been released in China. That wasn't enough to crack the global top 10.

GLOBAL BOX OFFICE: $376 MILLION

The Martian

• The best-performing movie among the Best Picture nominees (starring Matt Damon, right) opened on 3,854 screens. Some 62% of its total take was outside the U.S., according to Box Office Mojo.

GLOBAL BOX OFFICE: $598 MILLION

CLOCKWISE FROM LEFT: COURTESY OF WALT DISNEY; 20TH CENTURY FOX FILM, ALL RIGHTS RESERVED—EVERETT COLLECTION; COPYRIGHT BLEECKER STREET MEDIA—EVERETT COLLECTION; AIDAN MONAGHAN—COPYRIGHT 20TH CENTURY FOX, ALL RIGHTS RESERVED/EVERETT COLLECTION

A die-cast action figure from *The Force Awakens*, far left. *Kung Fu Panda 3* (poster at left) is a co-production of DreamWorks Animation and Chinese investors.

And, of course, there's the foreign audience, which accounted for about 70% of Hollywood's revenue in 2015—and 54% of the $1.9 billion global take for *The Force Awakens* through mid-January. In the U.S., the number of tickets sold hit a 10-year low in 2014 (before ticking up last year), so studios must sell to the world—and in particular to China, which will likely overtake the U.S. as the world's largest movie market in 2017.

China has a quota system for foreign films and rigid rules around revenue sharing. To crack the market, several Hollywood studios have partnered with Chinese companies. Last September, Warner Bros. and China Media Capital, a state-backed investment firm, entered into a joint venture to develop a slate of Chinese-language films. *Kung Fu Panda 3*, opening in late January, is a result of another joint venture, between DreamWorks Animation and several Chinese companies, launched with an investment of $330 million in 2012.

Studios find themselves having to cater not only to Chinese censorship laws, including how the government is portrayed and levels of violence allowed, but also to local tastes and humor. "You try to solve for reducing cultural nuances," says Stacey Snider, co-chairman of Fox's film studio and former head of DreamWorks. "Everyone thinks we [Hollywood studios] just dumb down movies, but we don't."

3 TRANSFORMERS

CHINA IS one of the few places on earth where you won't find Netflix (the company is seeking permission to operate there). But the streaming service is available in more than 190 other countries. And it recently planted a flag in another new territory: the land of original feature film content.

In October it released *Beasts of No Nation* in theaters and on its streaming platform simultaneously. *Beasts*, a drama about a child soldier in Africa, showed in just 31 theaters, making less than $91,000 at the box office. Still, that's all it needed to be eligible for Oscar nominations. (It didn't get one, but two Netflix documentaries did.)

Netflix and its online brethren are gaining film-world clout as they gain viewers. Last summer, Netflix reportedly plunked down $60 million for the rights to Brad Pitt's upcoming project, the military satire *War Machine*. (Creative Artists Agency helped broker the deal.) Not to be outdone, Amazon released its first feature film, director Spike Lee's *Chi-Raq*, in theaters last year. In the past, productions like these might have struggled to attract A-list talent. But both companies now have not only the financial resources but also the gravitas to attract the likes of Brad Pitt.

Simultaneous theater and home release has long been a no-no in Hollywood, with theater chains denouncing it and studios fearing it will cannibalize revenue. Neither Netflix nor Amazon has figured out how to make the new economics work. But they're betting that original films will boost their status as one-stop entertainment hubs, giving subscribers another reason to choose them over traditional moviemakers. That makes them a financial threat to the majors, even if their films aren't yet. Studio heads know they eventually need to lead in digital or risk losing out to another screen-based center of gravity, the one in Silicon Valley.

Netflix's *Beasts of No Nation*, with Idris Elba, was simultaneously released on its streaming platform and in theaters (where it made less than $91,000).

SWEATING IT OUT

Room

• As of nomination day, this drama was the sixth-lowest-grossing Best Picture nominee of the past 33 years, but it has a low budget to match, with three production companies sharing the risk.

GLOBAL BOX OFFICE: $6 MILLION

Brooklyn

• Backers of this coming-of-age tale included the Irish Film Board and BBC Films. Its marketing budget was reportedly unusually high for an indie, but strong results abroad could make it profitable.

GLOBAL BOX OFFICE: $25 MILLION

The Revenant

• It earned more Oscar nominations (12) than any other movie—and it needed the resulting box-office bump, since production costs alone (not including marketing) ballooned past $130 million.

GLOBAL BOX OFFICE: $156 MILLION

Spotlight

• This movie's tight focus on a very specific American milieu—journalists and Catholics in Boston—could make it a tough sell abroad. Its production costs were an estimated $20 million.

GLOBAL BOX OFFICE: $31 MILLION

Good Luck Getting Out!

PRIVATE INVESTORS HAVE PUT $362 BILLION INTO STARTUPS OVER THE PAST FIVE YEARS, PUMPING UP THE PAPER VALUE OF SO-CALLED UNICORNS. NOW THE BROKEN TECH IPO MARKET IS CRATERING. WHO WILL SURVIVE THE RECKONING?

BY WILLIAM D. COHAN

ILLUSTRATION BY GORAN FACTORY

OF ALL THE SILICON VALLEY IPOs in the past couple of years, Lending Club's might have been the surest bet of all. ¶ The San Francisco peer-to-peer lender is a star in the world of "fintech," a growing sector made up of financial technology companies bent on disrupting the traditional banking sector. Its backers include venture capital royalty such as Kleiner Perkins and Union Square Ventures, not to mention Google and Alibaba. The startup's gold-plated board of directors includes luminaries such as John Mack, the former CEO of Morgan Stanley; former Treasury Secretary Larry Summers; and Mary Meeker, the one-time doyenne of Internet IPOs who is now a Kleiner partner. In other words, Lending Club had assembled a very smart-money crowd. Its much-buzzed-about offering was viewed, understandably, as a slam dunk.

In December 2014, led by underwriters at Morgan Stanley and Goldman Sachs, Lending Club priced its shares at $15, above the high end of the proposed range of $12 to $14. The IPO was 20 times oversubscribed and instantly gave the company a market value of nearly $6 billion. On the first day of trading, Lending Club's stock jumped almost 70% before pulling back to close at $23.42 a share, a one-day pop of 56%. For shareholders who got out quickly, it went in the books as another very successful offering.

Then reality set in. Lending Club's stock peaked about a week after its IPO, at nearly $26 a share, and has been retreating ever since. Never mind that the startup delivered extraordinary financial results in its first year as a public company: Lending Club's operating revenue was up more than 100% in the first nine months of 2015 compared with the same period in 2014, and its Ebitda, a measure of earnings before subtracting expenses such as interest and taxes, was up more than 200%. The stock recently traded around $8 a share, nearly 50% below its $15 IPO price.

Naturally, Lending Club CEO and co-founder Renaud Laplanche wishes the stock price were higher. But he's trying to look past short-term vicissitudes. "Part of the main reason for going public was to continue to establish Lending Club's brand and credibility," he says. "We're building a big company. It's going to take a very long time, but we want to do it in the public eye with full transparency. I think from that standpoint, we got rewarded. I think the Lending Club brand is a lot more established now than it was a year ago."

That may be true with customers and bankers, but ask any retail investor who made a bet on Lending Club at around $20 a share about the company's brand today, and the response is likely to be a grimace followed by a torrent of vitriol.

Unfortunately the Lending Club story is not an isolated case. Time and time again during the current IPO cycle, Wall Street underwriters—egged on by ambitious CEOs, hungry venture capitalists, and favored institutional investors—have hyped one technology IPO after another. The bankers price the offerings for perfection, watch them soar on the first day of trading to deliver the coveted first-day spike, and don't stick around to offer an explanation after the shares plunge below the first-day price. (Morgan Stanley and Goldman Sachs declined to comment for this story.)

Welcome to the world of zombie tech stocks—once-highflying IPOs wandering aimlessly in the wasteland of the public equity markets and understandably unloved by investors. Many have familiar names, such as Zynga (down about 75% from its IPO price), Twitter (down 30%), and Groupon (down 85%). Online craft marketplace Etsy recently traded 56% below last year's price at IPO and 77% under its first-day close. Others that are less well-known—like Nimble Storage (67% below IPO price)—have been just as disappointing.

To be fair, some major tech IPOs have soared in recent years, among them LinkedIn, Tesla Motors, and, after a rocky and controversial start, Facebook. But these are the exceptions. The detritus far outnumber the success stories, raising the question, Is the method by which companies go public as broken and inequitable as it ever was? That would certainly seem to be the case. And the problem is especially acute when it comes to tech companies for which relentless forward momentum is key not only to pleasing investors but

also to attracting talent and keeping their competitive edge.

This set of facts doesn't bode well for the current wave of talked-up technology companies in the IPO pipeline—the so-called unicorns, or private startups valued at $1 billion or more by their investors. This once-rare species of startup has proliferated lately in Silicon Valley and beyond—from headliners such as Uber and Airbnb to lower-profile newcomers like Apttus and HelloFresh. Last year *Fortune* identified more than 80 unicorns for a cover story on the phenomenon; by our most recent count, that number has grown to 173. (See "The [New] Unicorn List" in this story.) According to CB Insights, a research firm that tracks venture capital investments, private investors have plowed some $362 billion into startups in just the past five years.

That means that a tremendous backlog of potential technology IPOs is building up just as the stock market is beginning to look very wobbly after its nearly seven-year bull run. Indeed, U.S. stock indexes began 2016 with their worst first-

↑ Lending Club CEO Renaud Laplanche on the floor of the New York Stock Exchange on the day of his company's IPO in December 2014. The stock got a first-day pop of more than 50%. It now trades well below the IPO price.

two-week period in history. The S&P 500 fell 8% in the first 10 trading days, and the S&P tech sector underperformed the broader market by a full percentage point.

For an already weakening tech IPO market, the turbulence in stocks is a punch to the stomach. In mid-January, IPO research specialists Renaissance Capital put out a special report called "Exploring the Disappearing Technology IPO." The trends it identified were not encouraging. From 2012 through 2014, according to Renaissance, there were an average of 36 venture-backed tech IPOs per year. But in 2015 that number dropped to 23, and only seven of those offerings happened in the second half of the year, partly because of a stock market correction in August. Though the average time from founding to IPO reached a high for tech deals in 2015, the profitability of the typical technology company going public has plunged into negative territory over the past couple of years. The median Ebitda for tech companies going public in 2015 was –$9 million.

All signs point to a continued slowdown in tech IPO activity in 2016, says Kathleen Smith, a principal at Renaissance and the company's manager of

RICHARD DREW—AP

THE (NEW) UNICORN LIST

When we published our inaugural unicorn list in February 2015, we counted slightly more than 80 privately held, venture-backed companies worth $1 billion or more. That number has since exploded: By our count there are now 173 unicorns, collectively worth more than $585 billion. But the pace of anointing new unicorns is slowing, and ongoing economic uncertainty is pressuring the group to justify their lofty valuations. —*Andrew Nusca*

GRAPHIC BY NICOLAS RAPP

CHART SOURCES: PITCHBOOK; CB INSIGHTS; NEWS REPORTS; FORTUNE

IPO-focused ETFs. She says it won't take long for the unicorns to feel the chill as well. "What's happening now is just going to take the bottom out of these private valuations, many of which are imaginary," says Smith. "And this valuation reset is going to have a very negative effect on new funding."

It appears that a reckoning is coming in the tech world. The combined value ascribed to the 173 unicorns by their investors is a stunning $585 billion—an especially astonishing figure given that so many of them aren't even close to profitable. Sky-high valuations—driven in part by unicorn mania and an influx of money from nontraditional (and less disciplined) venture investors—have limited the number of potential acquirers for a lot of the buzziest companies.

A number of startups may have hoarded enough capital to ride out the rough patch, but even those that survive could experience mass defections and morale-killing "down rounds." In mid-January, for example, check-in app company Foursquare raised $45 million in new venture funding but was forced to accept a valuation of less than half the $650 million value it was given by its investors a few years ago. "I imagine there's going to be some pivots in some business models," says John Gabbert, founder and CEO of VC data provider PitchBook.

There is also certain to be increased pressure from the VC community for any tech company on the verge of readiness to seek the "exit" of the IPO process even as it is shrinking. But every IPO currently trading below its IPO price creates a negative feedback loop, making the odds of the average unicorn getting out a little longer every day. And it doesn't help that the process is fundamentally rigged against them.

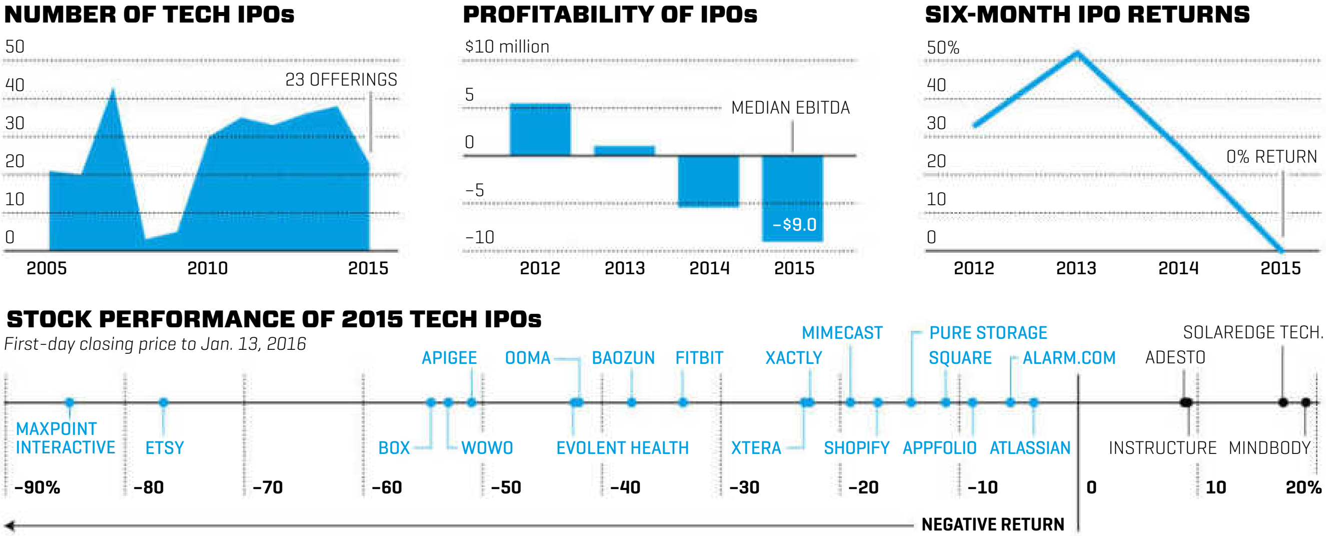
TO APPRECIATE the extent of the tech IPO problem, it helps to understand a bit about the IPO process itself. The system has long been designed to benefit the Wall Street underwriters and their favored clients—venture capital and buyout firms, as well as the big institutional buyers of IPOs—at the expense of individual and retail investors, who have been brainwashed into thinking they are getting their hands on the Next Big Thing.

The venture capitalists or private equity investors—who finance the company while it is private—also have a big say in the IPO process. They want to make money on their investment, of course, and generally the most they possibly can. They push the underwriters relentlessly to get the highest price possible for the IPO, securing for them the biggest profit. But near the end of the process they begin to remember that they're not selling all their shares in the IPO. At that point they actually prefer a dynamic in which the stock is actively hyped—to generate enthusiastic demand for it—but the "float," or the percentage of the company's shares sold in the IPO, is kept small (say, around 15%) to curtail supply.

High demand for something in short supply leads to one outcome: a higher and higher price for

PUBLIC DISPLAY OF DISAFFECTION

Over the past couple of years the profitability of the typical tech IPO has plummeted along with post-IPO stock returns. According to research by Renaissance Capital, the number of VC-backed tech IPOs dropped sharply in 2015 and the majority of offerings have performed poorly so far.



GRAPHICS SOURCE: RENAISSANCE CAPITAL.

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the stock when it finally hits the market. That way the VCs can double dip: They can crow a bit and notch a big gain on their initial investment (perhaps even selling some shares in the offering), but can also know that they were clever in hanging on to most of their stock, especially when the stock moves up smartly on the first day of trading.

The big Wall Street underwriters set the rules of the game. “Morgan Stanley and Goldman Sachs will tell you it’s not a successful IPO unless there’s a 20% to 30% pop,” says John Buttrick, a partner at Union Square Ventures. “That’s the way they get graded with their clients: Did the stock trade up after pricing? Much of the IPO machine is focused on generating a sugar-rush spike in the trading price during the two to four weeks after IPO. After that, the market takes over: ‘Sorry, not my problem.’ They profess to take a long-term view, but the data shows post-IPO stocks are very volatile in the case of tech IPOs, and that is not a problem the underwriters try to address.”

Another important constituency for IPOs is the big institutional buyers of them—mutual fund firms such as Fidelity, T. Rowe Price, and the Capital Group. They like the first-day pop too, because that means they make money instantly. Twenty-five years ago Peter Lynch, when he was running Fidelity’s Magellan Fund, used to refer to IPOs as “sunset stocks”—as in, “the sun never sets on an IPO in my portfolio.”

Interestingly, it’s a system that has also defied innovation. In the past decade or so, some clever new ways have been created for companies to raise the equity capital they need without going the IPO route. There are now a number of secondary markets where equity capital can be raised privately and where insiders can sell their stock to new investors in order to get some liquidity in ways that were never before available. The JOBS Act, which took effect in 2013, allowed smaller companies to file prospectuses privately and raise capital much more discreetly than in the past, as a way to get some of the benefits of a public offering without the many negatives of excessive scrutiny and regulation. These changes have in fact helped enable the rise of the unicorns. And yet Wall Street hardly appears to have lost its leverage in the IPO process. If anything, the opposite is true.

The aftermath of the financial crisis—a world in which there are fewer and fewer underwriters, and many of the European banks have all but disappeared from the underwriting market—has reinforced the power of the established IPO underwriters to keep the status quo working for them and their best customers.

That means that despite the hype that still surrounds them, the growing universe of unicorns out there has little choice but to submit to the IPO cartel if it wants to raise a significant amount of equity capital. For every Uber, which seemingly attracts as much capital as it wants in the private market at increasingly stratospheric valuations, there are a hundred companies that must submit to the powers that be when it comes to raising new money.

As an example of how regular investors get the short end of this process, consider the cautionary tale of GoPro, the company behind every adventure athlete’s favorite digital camera—perfect for attaching to your head so that you can record your wild-ass snowboarding and base-jumping exploits.

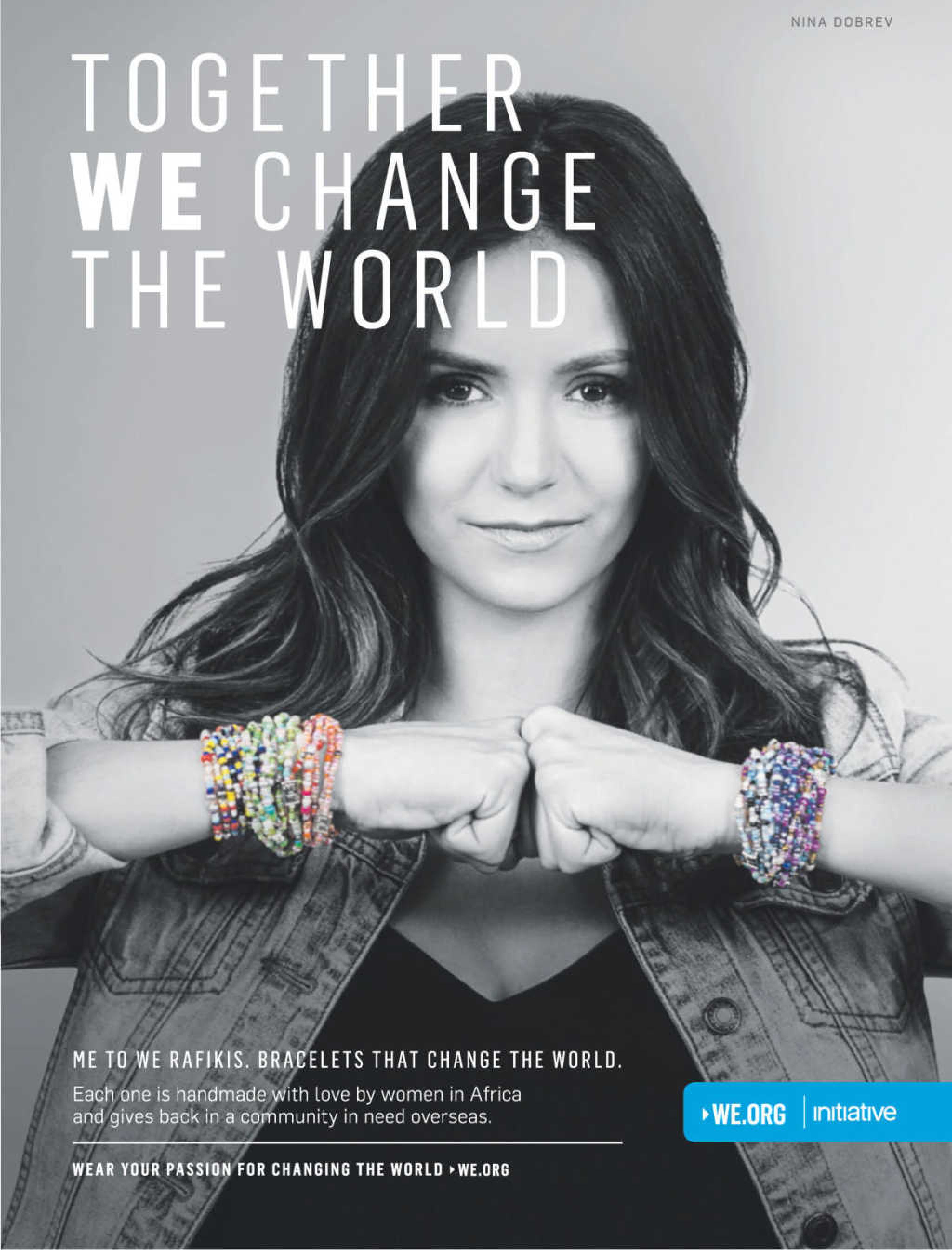
Remember how cool Nick Woodman, GoPro’s founder and CEO, seemed in all those interviews that cropped up before and after his company’s IPO? When GoPro went public, in June 2014, at $24 a share, the company raised $491 million, and the lead underwriters at J.P. Morgan Chase, Citigroup, and Barclays pocketed more than $28 million in fees. Right on cue, GoPro’s stock sprinted up nearly 50%, delivering that all-important pop. Within three months, on Sept. 30, 2014, it was near $95 a share, giving the company a market value of more than $13 billion.

These days Woodman isn’t talking so much. (He declined a request to be interviewed for this story.) For months GoPro’s share price has been plummeting faster than a mountain biker on a headlong descent. In mid-January, trading in GoPro’s stock had to be temporarily halted after the company warned of disappointing fourth-quarter results and said it planned to lay off 7% of its workforce. Lawyers representing shareholders quickly slapped the company with class-action lawsuits. GoPro’s shares recently traded for less than $12, more than 50% below its IPO price.

It’s been a painful reversal. But many of GoPro’s institutional investors from the IPO probably still have fond memories of the stock. That’s because they got to buy it at $24 and watch it soar to $36—then unload it for a quick 50% gain. What’s not to like?

And if both the venture capitalists and the institutional investors are happy with the first-day pop, then the underwriters are happy too, because their biggest repeat customers are both the private investors and the big institutional investors. To be sure, their high fees—the underwriting charge in the GoPro IPO was 6%—are nice too. But the real goal is making sure that their customers are happy and do business with them again and again. At Goldman Sachs, one of the firm’s mantras is to be “long-term greedy,” and the IPO underwriting process is a perfect example of how it puts that philosophy into practice. It’s one of the few businesses in the world today that has remained virtually impervious to disruption by Silicon Valley.

WILLIAM HAMBRECHT has been talking about changing the way IPOs are underwritten and priced for close to 20 years, since he left his firm Hambrecht & Quist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(which was then sold to what is now J.P. Morgan Chase) and started W.R. Hambrecht & Co. in 1998 with the hope of upending the way the Wall Street cartel manages and markets IPOs. One of the firm's high-water marks came early in its existence when it was one of the underwriters of the Google IPO, in August 2004. (There were 31 underwriters in all, led by Morgan Stanley and Credit Suisse First Boston.)

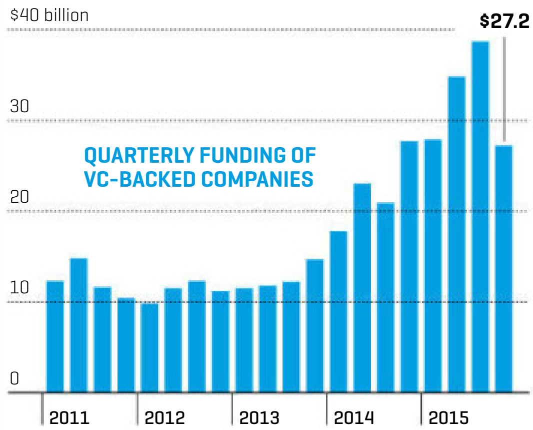
Eleven years on, people may no longer remember how controversial it was at the time for Google to have adopted Hambrecht & Co.'s auction strategy for what became the most important company in a generation. After conducting an online Dutch auction for the Google shares, in which investors named the price they would pay and orders were filled in the order of those who bid the highest price, the underwriters priced the Google IPO at $85 a share, below expectations. The stock closed on the first day at about $100 a share, up 17%. (In the end the lead underwriters didn't strictly adhere to the auction strategy in its purest form.)

Experimenting with a different IPO pricing model certainly didn't hurt Google. The tech giant's stock is up some 1,500% from its IPO, and the company (renamed Alphabet last year) has a market value approaching $500 billion, second only to Apple's. Its stock chart looks like one side of the Matterhorn. But very few other companies have been willing to go public the way Google did, through an auction process. (Some have, including Morningstar, up more than 400% from its IPO, and Interactive Broker Group, up about 50%.) Rather than a turning point, the Google IPO is remembered more as a historical footnote.

Hambrecht thinks the way IPOs are manufactured and sold remains a problem. "It really is a system that is broken," he says. He thinks the "traditional approach" needs to change but knows that the big underwriters won't do it, despite their understanding, intellectually, that the auction approach is a fairer system. They just make too much money as things currently stand. "The underwriters stick to the traditional approach because, first of all, it allows them to discount the pricing," he continues. "It gives them selective allocation to their best customers. And they've tried to keep a knowledge advantage, so it's really a proprietary product through the first six months or a year of the trading. All of those things enhance the profitability to the underwriter."

He says that when, say, Alibaba pops from $68 a share to $115 a share, as it did in the first few months after its IPO, the underwriters cash in because their institutional clients have made a lot of money and pay them back in kind over time. "The people who buy it in the aftermarket are the shareholders who end up, in effect, holding the bag," he says. Hambrecht doubts that the system will ever change unless a reform is forced on the banks legislatively (as was briefly considered after the Facebook IPO) or their vicelike grip on the large IPO business is disrupted. "It's deeply entrenched," he says.

In fact, Hambrecht is so resigned to the inevitable power of the name-brand underwriters that he's decided he won't try to fight them anymore. Instead, he's returned to what he did once upon a time at Hambrecht & Quist: Taking smaller startups public. His latest eponymous firm, Hambrecht & Co., specializes in underwriting for companies that have valuations below the unicorn threshold and garner less interest from the big banks.



IS THE PARTY OVER?

Driven in part by a flood of capital from outside Silicon Valley, venture investing has rocketed in recent years. In the fourth quarter of 2015 it pulled back sharply.

DESPITE THE DECK being stacked against them during the underwriting process, some executives at newly public companies say they wouldn't change a thing. In this camp are James Park, the co-founder and CEO of Fitbit, and William Zerella, its chief financial officer.

Last June, Fitbit, a maker of fitness tracking devices, priced its IPO at $20 a share, above its indicated range. Morgan Stanley was the lead underwriter. The stock opened up 52% right away and ended up about that much, giving the company a market value of $6.5 billion and making Park nearly a demi-billionaire. In November the company completed a secondary offering, at $29 a share—below the $31.68 a share where it had closed the day before—in which 14 million of the 17 million shares sold came from its VC financiers. It was, in part, a move to reduce the downward pressure on the stock as the expiration of the six-month lockup period loomed. These days, after a poorly received new-product offering, Fitbit trades below its IPO price.

But despite the stock's roller-coaster ride, Park and Zerella say they couldn't be happier with how the IPO was handled. Zerella credits his bankers for the way they ran the process. "They understood our story and were very helpful in articulating it to the Street," he says, although it also helped that Fitbit is a leader in its space and very profitable.

GRAPHIC SOURCE: CBINSIGHTS

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STARTUP SURVIVOR

Which unicorns have the business fundamentals to back their hype? Here are three likely to stumble—and three worth wagering on. —*Andrew Nusca*

PINTEREST CEO
BEN SILBERMANN

THREE TO BET ON

PINTEREST

The San Francisco photo-sharing startup took years to focus on revenue. It finally has—and advertisers are spending. Pinterest has escaped share-price markdowns from its mutual fund investors by handily beating its ambitious revenue targets as it lays the groundwork for an IPO.

ADYEN

The Amsterdam-based payments startup processed $50 billion in online and mobile sales last year, with (shock!) actual profits on its $350 million in revenue. Valued at $2.3 billion, Adyen is a steal compared with Stripe, which is worth twice as much but reportedly processed less than half as much in sales.

DOCUSIGN

Electronic documentation, or "e-signing," isn't the most exciting business—but it's growing fast. DocuSign, based in San Francisco, is the category leader and serves several *Fortune* 500 clients.

INSTACART CEO
APOORVA MEHTA

THREE TO BET AGAINST

INSTACART

The other shoe is expected to drop for on-demand delivery services this year, and San Francisco grocery-delivery service Instacart is the category's poster child. Venture capitalist Bill Gurley compared Instacart's challenging unit economics to "handing out dollars for 85¢."

WEWORK

Investors value WeWork, a wildly ambitious office-subletting business, like a software company. For WeWork to live up to its $10 billion valuation, it faces the daunting task of scaling like a software company—but with people, long-term leases, and office furniture.

DROPBOX

There are numerous reports of revenue-growth pains at this Redwood City, Calif., cloud-computing startup. But if that's not convincing, just look at the stock performance of its competitor Box: It went public at a 29% discount to its last private valuation, and today its shares are down a further 54%.

Park says that he and his management team were excited by the IPO and by being on the floor of the New York Stock Exchange when the stock first traded. He has no regrets about not pricing the IPO higher to get more of the offering proceeds for the company. Park says he understands the players at the table have to get their cut. "I think the worst outcome would have been for it to trade below the offering price [in the days after the IPO]," he says. "It was a delicate dance, and I feel that we struck the right balance in the price of the deal. And the pop on the first day really gave the company a lot of great momentum in the press and with employees."

Other perks: Park says the Fitbit IPO let the world know just how profitable his company is—with Ebitda margins of around 23%—and how, despite some formidable competition from Apple and others, Fitbit remains the industry leader. He points out that Fitbit now has a currency to use for potential acquisitions and says that going public has given the company's employees something to root for together—its stock price. "It's been a great event," he says. "It really cements us as a world-class company."

LAPLANCHE OF LENDING CLUB, for his part, tries to put his company's IPO experience in the most charitable light. But he can't help scratching his head about how the stock has traded since those hype-filled early weeks after the IPO. He says that if the stock hadn't jumped past $25 a share and had just traded at around $15, there would have been less disappointment, especially for the retail investors. "That being said, if they made a long-term investment, then I'm very confident that we're going to continue to deliver great results," he says.

No thanks to the standard IPO process. One of the reasons behind the volatility of Lending Club's share price is the simple matter of supply and demand. The underwriters at Goldman and Morgan Stanley argued for a float of between 10% and 15% of the shares outstanding, and in the end it was around 15%. That created scarcity value initially, leading to the coveted opening-day pop. That's the good news. The bad news came at the end of the six-month lockup period, when the Lending Club's VC investors started selling their shares into the market.

Whether it's a coincidence or not, Lending Club's share price moved from about $19 in early June 2015 to a low of around $11 three months later—in effect tracking the increase in supply of stock during the year as the venture capitalists started unloading their stakes in the company.

Laplanche, of course, understands these supply-demand dynamics. But he's not sure less sophisticated investors appreciate the subtleties of lockup periods and floats. "It can be a bit frustrating, particularly for people who wonder, Okay, what's wrong with the company? Is there something there that drives the stock price?" he says. "I think we're a good case study for it because we continue to report good news after good news, so there's really no fundamental you can point to to explain the stock performance. Really, all that's left is supply and demand of shares."

All indicators point to Lending Club being more than strong enough financially to soar past its post-IPO doldrums. In an increasingly tough environment for tech companies, some of its peers may not be.

SILBERMANN: KIM KULISH—CORBIS; MEHTA: BENJAMIN RASMUSSEN

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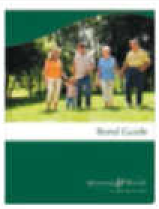

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PHARMA-
GEDDO

ON?

Billionaire Stefano Pessina cannily took control of Walgreens using the chain's own money. Now he's squaring off with CVS Health for drugstore domination. Can a brilliant dealmaker become a killer retailer?

by
JENNIFER REINGOLD
with
MARTY JONES

Photograph by THE VOORHES

On Jan. 9, 2015, the executives of the newly consecrated Walgreens Boots Alliance came together to ring the opening bell at the Nasdaq stock exchange. Standing in the center was CEO Greg Wasson, a onetime pharmacy intern from Indiana who had worked his way to the top of Walgreens, the 8,000-plus-location American drugstore chain with $76 billion in sales. Wasson had spearheaded the company's biggest ever acquisition. Next to him, grinning widely, was the man who had assembled the acquired company: Stefano Pessina, an Italian billionaire who had started with one local pharmaceutical distributor in 1977 and, through shrewd and voluminous dealmaking, built it into the $40 billion, 4,600-store Alliance Boots.

As the bell clanged and the ticker tape fluttered from the ceiling, the two embraced, now officially partners in one of the drug industry's biggest and boldest mashups ever. But for all the onstage camaraderie, there was only one person in charge. Just a month earlier, Wasson, who was slated to become CEO of the mammoth merged enterprise, had suddenly announced that, at age 56, he would retire upon the deal's consummation.

It was a surprise. Less surprising for many was the person named interim and later permanent CEO: Pessina. It appeared that the snake had somehow swallowed the

"I AM NOT A RETAILER," PESSINA, THE CEO OF WALGREENS, READILY ADMITS. "I AM NOT A WHOLESALER ANYMORE. I AM A TEAM BUILDER AND A COMPANY BUILDER."

elephant—or, in the words of many former Walgreens executives, the iconic American brand had been bought with its own money.

Today the 74-year-old Pessina, who owns some 13% of WBA, is firmly in control. And he's not done swallowing companies. Before Walgreens had come close to digesting Alliance Boots, Pessina had announced plans in October to buy Rite Aid, the No. 3 player in the U.S., for $17.2 billion. He says there are more deals to come. "I am really convinced," he said on a recent earnings call, "that vertical integration is a necessity for this market to control the costs in the health care arena. We are always open, even to partnerships."

Onlookers were taken aback by Pessina's audacity—*Who is this guy?* But this is merely the latest maneuver in a career filled with ever more ambitious transactions. The story of how a septuagenarian Italian became a key player in how U.S. consumers buy deodorant and Lipitor is a saga for the ages. It's replete with everything from high-stakes negotiations and romance to bitter accusations of backstabbing and betrayal. It's a heck of a tale, and one whose ending has yet to be revealed.

Pessina's track record is impeccable. He has constructed a giant corporate edifice in the service of creating a truly global health care enterprise. His pharmaceutical wholesaling business and his drug stores each now operate on four continents. Still, Pessina's last few moves transformed his firm from primarily a wholesaler to a company heavily dependent on U.S. retail stores, a graveyard for more than one swaggering foreign adventurer. (Remember Tesco? Marks & Spencer buying Brooks Brothers? Sainsbury's? I thought not.)

In the U.S., his retail strategy is to infuse the panache of Boots into the efficiency and convenience of Walgreens stores. As WBA bulks up, it is girding itself to take on giant CVS Health in the battle for control of consumers' medicine chests. Can Pessina give its biggest U.S. rival a run for its money—or has the master acquirer finally done one deal too many?

One bottle of San Pellegrino water. It's the closest thing to a personal item visible in Pessina's office in Walgreens Boots Alliance's headquarters in Deerfield, Ill., near Chicago. It's the only evidence that a human being at least occasionally works there. There are no photographs with luminaries, no mementos of product launches or even stacks of files. Perhaps that's because Pessina actually lives in Monaco and spends so much time on the road. It may also be because he isn't interested in typical CEO activities. He doesn't visit many stores or pose for selfies with the employee of the month. He doesn't obsess over a particular SKU. "I am not a retailer," he readily admits. "I am not a wholesaler anymore. I am a team builder and a company builder."

Pessina had never planned to be a businessman. He attended the prestigious Politecnico di Milano, intending to become a nuclear engineer or an academic. But during the turbulent late 1960s, he was repelled by his fellows students' push for what he viewed as lax grading standards. "I was disgusted," he says. He quit school and landed a job heading the statistical department of A.C. Nielsen's Italy office. When Nielsen asked him to move to Chicago, he declined. "I had learned what I could learn," he says.

Instead, he turned his attention to a project for

PHOTOGRAPHS BY TAYLOR CASTLE

LIFETIME DEAL? PESSINA, LEFT, MET HIS "LIFE PARTNER" AND FELLOW EXECUTIVE ORNELLA BARRA WHEN HE ACQUIRED HER COMPANY DECADES AGO.

his father, Oreste, who owned a small, struggling pharmaceutical wholesaler in Naples. Oreste hoped his son's facility with numbers would help him. Pessina says he turned the business around—then began helping his father's colleagues do the same in return for a small stake in their companies. He soon realized the sector was ripe for consolidation.

Pessina became enamored with transactions—so much so that in 1984 he fell for Ornella Barra, the glamorous owner of a small Ligurian drug wholesaler, whose company he later bought. The two never wed (Pessina remains married to his first wife, from whom he separated decades ago), but they are "life partners." Barra has worked with Pessina ever since, holding senior executive positions in every iteration of his company. Today she heads Walgreens' global wholesale and international retail divisions. Says Barra: "The secret of our life and working together is that he's the boss. We have different opinions, but when he takes a decision, it's also my decision."

After Italy, Pessina set his sights on France, where, with Barra at his side, he rolled up 30% of the drug-wholesaling market within five years and then moved into other countries. He became a master at understanding the quirks of each region, in part by partnering with—and then outmaneuvering—smaller players. His method: Buy a stake in a company, help improve the bottom line, and then gain enough control to merge with or buy yet another one. It always seemed he was buying a new company before he had even finished unwrapping the last one.

"It's a game at the end of the day," says Pessina, who estimates he has made 1,500 acquisitions. Adds Ken Murphy, a deputy for 17 years and the head of WBA's global brands: "He's got an objectivity which is quite stunning. He never gets emotionally embroiled; he never loses himself. He never becomes a slave to the deal."

For all of Pessina's seeming addiction to transactions, there was a broader strategy at work: He was convinced that the drug-distribution business was destined to consolidate. And so Pessina kept rolling up ever bigger targets. Alliance Santé, as his company was called by the mid-1990s, expanded further into Europe until 1997, when Pessina, believing he could rationalize the costs of pharmacies with his wholesale business, merged with UniChem, one of Britain's largest pharmacy chains and a public company. The move added retail expertise and the experience of a public listing to his portfolio and made him wildly wealthy. Yet he struggled to integrate the two cultures—and, in a precursor of things to come, took over as CEO. (He relinquished the position in 2004.)

Next, Pessina boldly set his sights on Boots, the largest and best-loved English drugstore chain. He spent several frustrating years trying to persuade three different chief executives to sell. In 2005 he finally got CEO Richard Baker to take the bait. The companies combined to form the new Alliance Boots.

Although the European press often calls him "silver fox" for his spiky white hair and blue eyes, Pessina lacks charisma on first impression—until you ask him about a deal or the future of the industry. Then his eyes crackle with energy and he displays a penetrating clarity (not to mention a refreshing absence of CEO pablum).

Pessina has maintained his focus, plowing his equity into the next deal. That's one reason his fortune is currently estimated at more than $12 billion. He insists he's not motivated by riches. "When you have some money," he says, "if you have 10 times more, it's absolutely irrelevant." Pessina wants to keep building.

Soon after the merger with UniChem, Pessina joined forces with private equity giant KKR. He and its health care chief, Dominic Murphy, decided to take Boots private, ultimately beating back

WALGREENS, THEN AND NOW: LEFT, A WALGREENS PHARMACY IN 1964; RIGHT, A CONTEMPORARY VIEW. PHARMACIES ACCOUNT FOR TWO-THIRDS OF WALGREENS BOOTS ALLIANCE'S U.S. SALES.

several rivals to complete a $22.3 billion deal—Europe's largest leveraged buyout ever, with a stunning $11.8 billion in debt. The transaction, closed in the summer of 2007, catapulted Pessina into the spotlight—CEO Baker abruptly resigned, leaving Pessina in charge again—and spurred fears that a revered brand would be ruined by the foreign financiers.

But he flummoxed the skeptics. Boots didn't fail. Pessina and KKR cut jobs and costs but also invested, sprucing up the stores and differentiating them with an increased emphasis on beauty and other higher-margin products. Alliance's distribution unit signed a radical agreement with Pfizer to become the exclusive wholesaler of its drugs in the U.K. The deal provoked howls of outrage until it was shown to have substantially reduced the prices consumers paid.

Pessina's ambitions and confidence only continued to grow. His goal remained consistent: to create a global health care company. And Alliance Boots couldn't be truly global without the U.S.

Back in the heartland, Walgreens CEO Wasson was facing tough choices. He had taken the top post in 2009 with a mandate for change. But the chain had reached the limits of organic growth. The financial crisis was crimping consumer spending. Walgreens' homespun way of doing things seemed dated in the age of the Internet.

It had worked for so long. Charles Walgreen and his descendants had built a behemoth by innovating and offering a great customer experience. Walgreens chose the best locations and hired the best pharmacists and shopworkers, paying them more and promoting from within. It delighted customers early on, giving away free goldfish with a $1 purchase and inventing the malted milk shake in 1922.

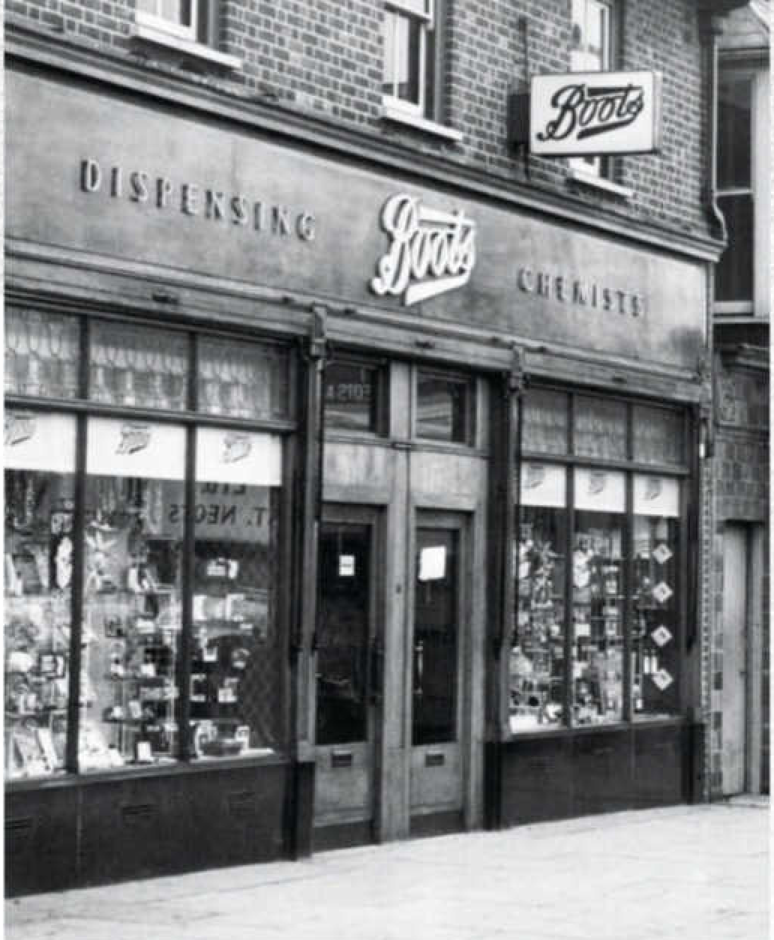
And then—from approximately 1975 well into the 1990s—the company went turbo, blowing past rivals to become one of the largest retailers and one of the best-performing stocks in America. It was lauded in the book *Good to Great* for its performance—trouncing the stock market by a factor of seven—as well as its ethical, modest, people-focused approach. "I always considered it a paternalistic-type company," says Jeff Rein, Walgreens' CEO in the mid-2000s.

Rein's successor, Wasson, put the brakes on rapid store expansion but did undertake a few acquisitions, including the New York–based Duane Reade chain in 2010. He cut costs and brought in some outside talent. He also vowed to use Walgreens' clout to stand up to pharmaceutical benefits managers (PBMs), which represent organizations whose employees purchase a lot of medications. PBMs were lowering reimbursement rates to chains.

Wasson decided to take on Express Scripts, one of the largest PBMs, as his test case. He announced in 2011 that the company would stop doing business with it, believing that customers would be more loyal to their pharmacy than to a PBM.

He was wrong. Customers streamed out the door and Walgreens' earnings plunged. Says Adam Fein of Pembroke Consulting: "They brought a

LEFT: COURTESY OF WALGREENS; RIGHT: LUKE SHARRETT—BLOOMBERG VIA GETTY IMAGES



BOOTS, OLD AND NEW: LEFT, A BOOTS OUTLET IN 1962; BELOW, A MODERN STORE, WITH CUSTOMERS LINING UP TO BUY THE COMPANY'S POPULAR NO7 BEAUTY PRODUCTS.

LEFT: LOCAL WORLD/REX/SHUTTERSTOCK; RIGHT: JAMES VEYSEY—CAMERA PRESS/REDUX

knife to a gunfight. It was a massive miscalculation, and millions and millions of scripts walked out the door and never entered a Walgreens again."

Wasson had previously discussed a possible Boots deal with Pessina. But suddenly overseas growth had become more of an imperative. Pessina, not surprisingly, was game. As he puts it, "We saw that we were sharing values."

Still, Walgreens was nervous about a full-on merger, so Pessina proposed a complex two-step process in which Walgreens would acquire 45% of Alliance Boots in 2012. Three years later, if both parties were satisfied, it would buy the rest.

In July 2012—weeks after the first step of the deal was announced but before it had closed—Walgreens capitulated and began working with Express Scripts again. The truce pleased investors, who boosted Walgreens' stock 12%. The biggest beneficiaries: Pessina and KKR, who had agreed to receive a set number of shares (rather than a set dollar amount) from Walgreens.

Pessina out-negotiated his counterparts, say sources on both sides. Says Barclays analyst Meredith Adler: "I thought it was pretty irresponsible to negotiate when the thing was still going on. They [Walgreens] gave away a lot of stock value. I used to joke that KKR or Pessina had negotiated both sides of the transaction." (A WBA spokesperson says the fixed number of shares "helped align both parties' interests to maximize synergies.") Observes Murphy: "It was men against boys."

The two companies—now engaged, with marriage looming—began to explore the practicalities of getting hitched. Teams flew back and forth between Nottingham, England—Boots' home—and Deerfield to uncover best practices. More seemed to come from Boots than the other way around. Wasson had long wanted to improve the retail part of Walgreens stores (two-thirds of sales came from the pharmacy), and he saw Boots, which did more than half its business in retail, as the ideal laboratory. To that end, Alex Gourlay, a Boots lifer, was installed to help run Walgreens USA.

Then a massive error tilted the balance of power even further in Boots' direction. Walgreens had forecast that the prices of generic drugs would fall—only to realize that in fact they were rising. In the summer of 2014, the company abruptly slashed its projected 2016 profits by a third. Walgreens shares dropped 14% in a day. Says Adler: "It was a complete shocker."

The aftermath only made Walgreens look worse. Unnamed company executives and directors were quoted in a *Wall Street Journal* article blaming the disaster on CFO Wade Miquelon and a second executive. A Wasson confidant who had been well regarded, Miquelon had just stepped down, in a planned retirement. He was incensed by the impression that he had resigned because of the forecasting miscue.

Miquelon filed a defamation suit against Walgreens. Among his claims: that Pessina and Wasson had been aware that the company was struggling to meet its projected profits and that they had pushed Miquelon to find a way to reach the targets. (The suit is still pending, though seven of nine counts have been dismissed. Miquelon did not respond to requests for an interview.)

OLD REGIME: GREG WASSON, LEFT, STEPPED DOWN AS WALGREENS' CEO. WADE MIQUELON, ITS FORMER CFO, FILED A DEFAMATION SUIT AGAINST THE COMPANY.

Miquelon's complaint included emails in which he was praised by Wasson and told he could be a CEO candidate one day, along with one from Wasson that reads, "Let's push for a 6 somehow," referring, Miquelon asserts, to earnings per share. After Miquelon objected, Wasson texted "No choice. Need a 6. We'll find a way." (Today WBA is projecting $4.30 to $4.55 in earnings per share for 2016.) In a legal filing, Walgreens argued that "there is nothing improper about a CEO asking his CFO if better results are possible, e.g., through greater cost reductions, synergies, or share buybacks." For his part, Pessina claims ignorance. "We were not in charge," he says. "If we had been in charge, this would not have happened, I can assure you."

Walgreens and Boots had decided to proceed with the second step and complete the merger ahead of schedule. But Wasson's credibility took another blow when the board opted against an inversion, in which the company would have moved its headquarters to Switzerland and bolstered after-tax earnings by an estimated $600 million. The timing was lousy, coming just as inversions became a political issue, excoriated by President Obama and many others. Walgreens chairman Jim Skinner, a former CEO of McDonald's, says the two-step deal made the maneuver vulnerable to IRS challenges.

Confidence in Wasson began to wane, but as late as Nov. 24, 2014, Walgreens' proxy stated that he would run the company when the deal was consummated at year's end. Pessina says he wanted Wasson to be CEO of the merged company and was surprised when he decided to step down. "Six months before," Pessina says, "I would have said that Greg would have stayed. And after, things began to be difficult. You have seen, with the team and with him, the shareholders were not happy."

The comment is oddly elliptical and passive given that Pessina is a shareholder controlling 13% of the company's stock, with allies KKR and activist fund JANA Partners holding sway over another 4.7% and 1.1%, respectively. "It was not us [who pressed for Wasson's departure]," Pessina insists. "On the contrary, I tried to help Greg as much as possible."

Wasson recalls it differently. "It was my decision to retire," he says. "I really had spent some time reflecting; I had just put the biggest merger together. Now there would be another three to five years of integrating the merger. I had been CEO for six years and thought, Now's the time."

Some of the shareholders, however, were about to be very happy indeed. When the deal was finalized, KKR cashed out a profit of $5.4 billion while still retaining a substantial stake. Pessina emerged with 141 million shares, which are now worth nearly $11.3 billion.

After a desultory search, Pessina moved from acting to permanent CEO. He says he didn't aspire to the job. "I'm here because I wasn't lucky and I didn't have someone to do this job," he says, sounding a little put out that he has to spend time overlooking a snowy parking lot in Deerfield when he could be doing deals. "You can see where my heart is."

The senior management team is now dominated by former Boots executives. The board, too, has been restructured, with nearly half the members having been appointed by KKR, Pessina, or activist investor JANA Partners, which ended up with two seats and the right to veto a third after buying just 1% of the company. Pessina says WBA will soon have more representation from the Walgreens side. The many departures suggest that not everyone believes him.

Amid all the dealmaking and drama, there is still the crushingly difficult work of integrating two enormous, unwieldy, and proud companies across sprawling geographies. The good news is that in some ways, Boots and Walgreens feel like cousins separated by an ocean. Both are venerable (Boots is 166 years old; Walgreens, 115). Both were named for founders and run by family members for decades. Both had paternalistic cultures. Most of all, both had reputations for quality, service, and trustworthiness.

Yet there are also significant differences—which make some analysts wonder whether this will be the Pessina deal that finally disappoints. For starters, Boots shops feel like upscale emporiums. In Derby, 2½ hours north of London, its store resembles the ground floor of a U.S. department store. Prominent

WASSON: MIKE MCGREGOR—CONTOUR BY GETTY IMAGES; MIQUELON: APRIL L. BROWN—AP

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space is devoted to high-end beauty brands like Chanel and Clarins and cheaper ones like Max Factor. Advisers roam the aisles to help customers test a new lipstick or toner, especially Boots' popular house brand, No7. In a London outpost, an adviser pulls out a spectrometer to test my skin hue, then recommends complementary makeup colors (including a "warm paprika" lipstick). A Boots store feels like a Sephora with health care attached.

Walgreens stores aren't problems per se—they're clean and bright. The real issue is that generations of Americans have been trained to visit them for "convenience," picking up a quart of milk and some toilet paper, or maybe a prescription, and getting in and out as fast as possible. Efficiency, rather than lingering to try, say, a luxurious beauty item, is paramount.

That seems like an obstacle—but Pessina argues it's an opportunity. He wants to inject a little Boots into Walgreens. That mission falls to Gourlay, a coal miner's son who started working at a Glasgow-area Boots at age 16, and oversaw the chain before being sent to Walgreens in 2013. He has the passion for stores that Pessina lacks; Gourlay has visited some 500 Walgreens. Gesturing toward a color-coded map in his office that plans out the next several years, he argues that the company is poised for success. Trials of No7 in Phoenix have given Walgreens the confidence to roll it out to 2,000 stores later this year, and Gourlay thinks such products are not out of reach for Walgreens customers. "We had to stand up on our own two feet in retail [in the U.K.]," he says, in a Scottish burr that hasn't softened after two years in the Midwest. "We think we can do that in the U.S. We've been testing No7 and Soap & Glory [another brand]. It's not overly posh. It's mid-market. We're offering convenience and the availability of beauty advisers. These are 'masstige' products, but they are characteristic of high quality."

The Boots team is careful to sound humble. "We will never bring Boots here," says Pessina. "We will bring the products, we will bring ideas, but not Boots."

Still, making over Walgreens will be a costly and time-intensive endeavor—one that has been tried unsuccessfully before—in an environment that offers many other options for beauty, from Sephora to Ulta to CVS. There's also the fact that the moderate-price realm of the U.S. retail market is in serious trouble as the middle class continues to shrink. Finally, there is the specter of online retailing. Walgreens has superb retail locations. But how much does that matter when, for the first time, more Americans shopped online on 2015's Black Friday than visited stores? (Indeed, Walgreens has fallen behind its competitors in some of its digital initiatives.)

All this would seem like more than enough to keep Pessina occupied. But in October, he announced that Walgreens Boots Alliance was buying, for $17.2 billion, Rite Aid (or as he pronounces it, with a rolling "r" and a few extra syllables, "Rrrrrrriiiiite Aiiiiide"). The scale advantages are obvious, but the costs of executing another merger and the challenge of folding in yet another culture (and more debt) into this al-

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ready unwieldy company seem daunting. Moreover, for antitrust reasons, Walgreens may be forced to sell off more stores than the 1,000 it has accounted for.

And WBA will have to keep improving its pharmacies as the category is buffeted by massive change. Both CVS and Walgreens have struggled to contain spiraling drug costs. That's easier for CVS to accomplish, since it owns its own PBM, Caremark.

CVS and Walgreens are pursuing opposite strategies. CVS is emphasizing its pharmacies and health clinics even as Walgreens pushes consumer products. CVS has made health its unifying concept, punctuating the choice by adding "Health" to its name and making the bold decision to stop selling cigarettes. Says the CEO of another competitor, with admiration: "CVS has been really consistent and is building a brand around what it stands for."

Pessina has countered with what he does best: more deals. One, with wholesaler AmerisourceBergen, has already cut drug-acquisition costs. WBA will also buy medications directly (rather than through a wholesaler) from Valeant, the once-hot, now-beleaguered drug manufacturer. If Pessina can get others to agree to such terms, he could save Walgreens billions.

Can WBA thrive? It has $14.2 billion in debt and will carry as much as $31.2 billion—more than three years' worth of Ebitda—if the Rite Aid purchase is approved. That's a load that could constrain WBA's ability to invest. Also, measuring success is tough at the moment. Because the companies merged and reorganized, it's nearly impossible to compare current results with the past. Says Scott Mushkin of Wolfe Research: "They don't provide pro forma numbers. They could be down year over year." WBA shares have performed well, suggesting that investors are giving Pessina the benefit of the doubt for now.

Ultimately, Pessina is focused on vertical integration. "The industry has to change," he says. "In 10 years all of the distribution in the U.S. will have changed. We have to reduce dramatically the cost of distributing drugs and, more generally, products. We cannot sustain the explosion of the cost of health care."

Pessina may well be right, but he can't ignore the heart of retailing: the daily interaction with the customer. Says Bill Rudolphsen, the company's CFO from 2004 to 2008: "I understand it's the right thing to do to go global, but there's all this other stuff. It's so much about the culture." He recalls sitting in the boardroom, with portraits of three generations of Walgreen family members on the wall, and feeling their eyes on him: "When I sat at one end of the table, they were all looking at me. When I sat at the other end, they were all looking at me. It was part of the culture. They were all always watching me."

Pessina, unsurprisingly, feels less burdened by that legacy. "The survivors are the people who are able to change," he says, "and we have always been at the forefront. Not always are we right. But most times we are right, and this is why we are alive." He has won Walgreens. Rite Aid is on his plate. And Pessina will feel even more alive when he finds the next deal after that.

Charles Phillips, CEO of Infor, stands on the roof deck of his company's headquarters in Manhattan.

by Ellen McGirt

LEADING WHILE BLACK

An inside look at ***what's keeping black men*** out of the executive suite.

PHOTOGRAPH BY **ROBYN TWOMEY**

It was a dream job, the type of assignment that could make or break the career of an ambitious executive with an eye toward the top. “It was my first big promotion,” says Bernard J. Tyson, the 57-year-old CEO of Kaiser Permanente, a health care company with nearly $60 billion in annual revenue. The year was 1992, and Tyson, then in his early thirties, had been named administrator of one of Kaiser’s newest hospitals, in Santa Rosa, Calif. “Everyone knew this was the hospital to lead,” he says.

His physician partner, an elderly white gentleman named Dr. Richard Stein, was less excited by the news. “It was one of those *Guess Who’s Coming to Dinner* sort of welcomes,” Tyson recalls. And it went downhill from there. The two men were constantly at odds, unable to collaborate, with most conversations ending in angry standoffs. “He would say something, and I would react,” says Tyson. “It was the most difficult relationship I have ever had.” Failure seemed inevitable.

One day Stein invited Tyson for a walk. “He said, ‘I have to confess something to you, something that might end our relationship,’” Tyson recalls. “I have never worked with a black man like this.” He meant as a peer. Stein, it seems, didn’t know what to say, how to act, what to expect. Tyson saw it for the opening it was. “It was at that moment I realized that the majority of the population doesn’t have any sort of mental road map for how to relate to and work with someone different from themselves.”

Tyson credits Stein with the courage to open up about race. It changed the trajectory of their relationship and their work together, helping Tyson fine-tune a philosophy of inclusion that he believes can inspire empathy and courage within the organization he now runs—one that employs 180,000 people in eight states and the District of Columbia.

“I have the opportunity and the obligation to change the narrative around complex conversations like race that help us work together toward common objectives,” Tyson says. “But to do that, we have to tell the truth.”

“I have the opportunity and the obligation to change the narrative around race,” says CEO Bernard Tyson.

Let us begin, then, with one cold, hard-numbered truth: For much of corporate America, racial diversity continues to be at best a challenge—and at worst a flat-out fiction—particularly in the executive ranks. There have been only 15 black CEOs in the history of the *Fortune* 500, of whom five are currently in the role. (Ursula Burns, CEO of Xerox, is the only woman; Kaiser Permanente, the organization that Tyson runs, is a nonprofit and therefore ineligible for the *Fortune* 500.) Nor is it much better outside the corner office. According to a corporate diversity survey released last June by the office of Sen. Bob Menendez, a New Jersey Democrat, black men and women account for a mere 4.7% of executive team members in the *Fortune* 100 (the top 100 U.S. companies by revenue), a share that hasn’t budged since the survey was first conducted in 2011. Even at smaller companies, African Americans hold an estimated 6.7% of the nation’s 16.2 million “management” jobs, according to the latest figures from the Bureau of Labor Statistics, though they make up twice that share of the population at large.

Numbers, however, don’t capture the frustration that many black executives feel as they try to thrive and compete in a realm where race is often seen as an asterisk on their résumés and an unspoken subtext in conversations about career advancement. Black women, to be sure, face biases related to both gender and race—a double whammy of headwinds in

Georgetown University.

Some of the people we interviewed, such as Tyson, have made it. Some are just a few levels down from the top of the power pyramid. Others flamed out or opted out entirely. But most share some striking points of view. Many of these men, for example, spoke of having to constantly calibrate their public miens: striving to appear focused at the office but not too aggressive; hungry but not threatening; well dressed but not showy; talented but not too damn talented. Nearly all had experienced conversations shutting down (or being shut out) when matters of race were brought up; nearly all felt a profound sense of concern for the generation of black men to come, fearing that if they did nothing personally to develop the talent pipeline, the share of African Americans in business would only dwindle.

After more than half a century of corporate diversity efforts—the first of these programs evolving in the wake of the Civil Rights Act of 1964—this is where we stand. With the best of intentions, companies have spent untold billions of dollars on minority recruitment, bias training, mentoring, and support groups. One 2003 estimate put the value of the diversity-training business at $8 billion a year—a figure that may well seem conservative given recent initiatives. (Last year, for example, a single company, Intel, announced it was investing $300 million over three years to improve the gender and racial diversity of its workforce and the inclusiveness of its corporate culture.) Ninety percent of *Fortune* 100 companies now have a chief diversity officer. Nearly every major company has express policies and plans to

the flight up the company ladder. For black men, though, the challenges of the corporate life are daunting at least in part because they are sometimes hard to pin down—influenced as much by age-old prejudice as by cultural preconceptions, the subtleties of psychology, and the weight of human history (more on that soon).

For this story *Fortune* focused on the particularity of being black and male in corporate America. We spoke with dozens of black men about their lives and careers, interviewing executives at major companies, as well as researchers, educators, and talent experts. Many were eager to discuss the subject of race and the pressure they sometimes feel from having two "jobs" at the office: an official one, managing a team or division, and the other, "representing" other African Americans who have yet to make it into the room. "If you're being asked to show up at diversity fairs or be the 'person of color' at events unrelated to your job function, it costs you," says David Thomas, 59, dean of the McDonough School of Business at

PHOTOGRAPH BY **JEFF SINGER**

broaden workplace diversity.

These "best practices," however, simply aren't as effective as many believe. To cite one analysis, researchers at the University of California at Berkeley, Harvard, and the University of Minnesota evaluated the diversity programs of 708 U.S. companies from 1971 to 2002 and could find very little evidence of long-term positive impact. Other academic studies have revealed a growing backlash by white employees to diversity programs that many had once supported. A team of psychologists from the University of California at Santa Barbara and the University of Washington, for instance, recently reported that the mere fact that a company has a diversity policy can lead some white employees (even those who had previously considered themselves allies of the diversity cause) to believe they are being treated unfairly.

Former Obama administration official Jim Shelton, left, and Google Capital's David Drummond both believe that early intervention is the key to filling the black talent pipeline.

For many black men in corporate America, this new antagonism over diversity programs has only added to the frustration and sensitivity. It is a strange catch-22: The more that issues of race in the workplace are brought to light, the more prone and isolated some black executives feel. And yet the less often issues of race in the workplace are brought to light, the easier it is for the unsaid to negatively influence careers—and the more prone and isolated some black executives feel.

After the shooting death of Michael Brown in Ferguson, Mo., Bernard Tyson wrote a candid essay on LinkedIn about being a black man in America. "It was the image of an African-American kid, shot down and left in the street," he says. "Regardless of how it happened, you personalize that." Then he pauses, leaving unsaid the sentiment that many black men feel: *It could have been me*. His post, titled "It's Time to Revolutionize Race Relations," laid bare his own experiences as a black man and touched a nerve. The essay generated nearly 450,000 views and close to 3,000 comments and more than a thousand Twitter mentions.

While many black executives do their best to separate their professional skin from their human one, there are nearly constant reminders from the outside world that the two are the same. In his recent conversation with *Fortune*, Tyson ticks off a list of experiences he'd had in the previous few weeks: pulled out of the security line for a public pat-down as he attempted to enter his own luxury box at a football game; a crisp lecture on proper tipping that accompanied the check at an upscale restaurant; a woman clutching her purse tightly as he walked by.

The CEO talks openly about such interactions. When colleagues ask why he "exposes" himself that way, he answers with what has become a familiar refrain: "We have to be able to tell the truth about these things."

BUILDING A BLACK ENGINEER

In 2014 several firms, led by Google, published diversity data that showed how underrepresented African Americans are in tech. Facebook, Google, LinkedIn, Yahoo, and Twitter all reported that just 1% of their workers were black. Nobody was surprised.

DRUMMOND: COURTESY OF GOOGLE

PHOTOGRAPH BY **PATRICK JAMES MILLER**

Dr. Freada Kapor Klein, a diversity expert and partner at the Kapor Center for Social Impact, has a theory as to why the tech sector is so seemingly resistant to diversity in its ranks. "There is a deep and shared mythology that it is a perfect meritocracy," she says—a self-reinforcing vortex of talent drawn from certain schools, with identical credentials, wearing, most likely, similar garb. "Unless that gets dismantled, there is no way to implement effective diversity programs," says Kapor Klein.

Last year two black executives from Twitter abandoned their separate quests to dismantle the meritocracy trap. Leslie Miley, the highest-ranking black engineer (he won't give his age), and Mark Luckie, 32, the second-highest-ranking black employee, both quit. Loudly. Then, in separate posts on Medium, they went public with personal treatises on their experiences inside a company that they claim failed to recruit, hire, and develop black talent in any meaningful way. Miley's attempt to introduce more diverse engineering candidates into the hiring process who didn't have typical Silicon Valley educations or résumés triggered a laundry list of objections from colleagues, he says. When he proposed a new job to focus on onboarding and welcoming minority tech talent into the firm, he got an earful. After a particularly tense conversation with his boss about recruitment tactics, Miley claims he was told, "Diversity is fine, but we don't want to lower the bar."

David Thomas, Georgetown's McDonough School dean, says such arguments reveal a bias called attribution error. "People are more likely to trust performance data—that someone, for example, is an outstanding performer—if they're white," he says. If you're not expecting positive performance from a particular group, such as black men, you may attribute their success to external factors, like affirmative action or luck. Translation: If you hired a black programmer, there's a good chance you "lowered the bar" to do so.

Such ingrained attitudes make it harder, Thomas says, for black employees to find sponsors who believe in them—to create a market for them inside the company and out as they progress in their careers. His own research has found that it takes people of color longer than their white counterparts to transition into their first managerial job. Bias in the form of attribution error is probably a factor.

Back at Twitter, Luckie, who was the company's manager of journalism and media, tackled the diversity issue from the New York office. Where were the black people? he wondered. And why weren't they being promoted? "There was no buy-in from leadership," Luckie says today. "It's such a horizontal company, and there isn't a lot of room to grow. People who were promoted looked just like their manager." (A Twitter spokesperson says the company is committed to "making Twitter more diverse and inclusive" and is "making substantive progress.")

Both Luckie and Miley were active participants in the BlackBirds, the black employee affinity group at Twitter. But the collective had very little impact as a development or advancement mechanism, they say. In an attempt to break down barriers, Luckie even launched an informal "Ask a black guy" initiative. "The sales teams asked ... how to get Twitter involved in things like the *Essence* Festival or to get black influencers to support product launches—but there were some Beyoncé and twerking questions," he says with a sigh.

The relative lack of minority employees at Twitter was particularly galling, say Luckie and Miley, because the platform had become such an important tool for the global black community, through a vibrant and dedicated subset of users known as Black Twitter—who speak to one another about the reality of blackness in America and who often contribute original reporting, spreading news through ad hoc hashtag communities like #BlackLivesMatter. "Black Twitter is one of the best-use cases for Twitter itself," says Miley. "Yet instead of figuring out what we could learn from powerful groups like this, we were losing ground to Instagram."

Miley and Luckie felt as if they were living a case study in corporate frustration—and when both men quit, they left without a job. Luckie wrote a novel called *DO U*, about men at a fictional black college, and now runs a site called Today in Black Twitter. Miley, who says he "became the angry black guy" before he left, had a bumpier exit. When he made his decision to leave the company, he waved off a severance package in order to be legally able to share his story. He is now the director of engineering at Entelo, a private company that builds—wait for it—recruiting software. But the job search was nerve-racking. "My Medium post has come up in every interview," he says. "I make people nervous."

THE POWER OF NETWORKS

David Sutphen's black father and white mother fell in love at their jobs at the Social Security Administration, in Kansas City, Mo. They got hitched during their lunch hour, rushing across the state line to Kansas, where it was not prohibited for mixed-race couples to marry. Their lives were lives of ever-present risk, says Sutphen, managing partner at the Brunswick Group, an advisory and consulting firm based in Washington, D.C. The racism they faced was front and center.

Today Sutphen, 46, sees executive men of color managing a different kind of racial challenge—a balancing act. Black executives, he says, often have to play the role of "happy warrior," mastering the art of being exceptional but not frightening. Groups of black men can be ... intimidating, he says—then laughs: "There's not going to be a Most Powerful Men of Color conference [at *Fortune*]. But we could use one."

For many black men, that double standard starts very


Ed Welburn, GM's vice president of global design, turned a childhood love of cars into a dream job. GM's outreach helped get him there.

young. A striking 2014 study by UCLA professor Phillip Atiba Goff and colleagues and published by the American Psychological Association found that black boys as young as 10 years old were viewed as older than—and not as "innocent" as—white boys the same age. (Children 9 years and younger were seen as equally innocent, regardless of race.) Other studies show that black boys are more likely than white boys to be disciplined and sent to remedial programs for the same acting-out behaviors. And many people *Fortune* spoke with for this story say that many of the challenges that black men face in corporate hallways begin here—in childhood. In elementary school hallways.

Too many of them get lost there. "We know that if a boy can't read by third grade, he's four times less likely to graduate from high school," says Jim Shelton, 48, a former deputy secretary of education who now runs the online education company 2U. "And it gets worse from there." A kid who has been suspended once by ninth grade is twice as likely to drop out, and black boys are four times as likely to be suspended. In 2014, Shelton was tasked with setting up My Brother's Keeper, a corporate- and foundation-backed nonprofit initiative launched by President Obama to address the "opportunity gaps" and "achievement gaps" faced in particular by boys and young men of color.

As high-profile and as high-minded as My Brother's Keeper is, though, it is also sprawling in scope, from early-childhood health screenings to reading programs to efforts to reduce community violence. What matters most, though, is that MBK itself is a mechanism to connect boys with a network of successful adults. In the same vein, what often counts most for professional men is the intimacy of a social network. Relationships, in short, matter.

After Obama was elected, Sutphen reached out to his childhood pal Jon McBride, who had earned a post in the Obama White House in the Presidential Personnel Office. The two began to plan informal networking dinners in D.C. to get a handle on the new administration. But what started as a few dinners with friends and new acquaintances turned into a regular series of events that became increasingly more structured. Lots of industries were represented. "It became a convening platform, with special guests, to talk about issues that matter to us, like education," Sutphen says. But it quickly turned into a place where people could get the kind of high-level coaching that should have been coming from sponsors inside their firms. "'I've got a chance to head to Europe, should I take it?' 'Got any intel on this company?'—that type of stuff."

> At Twitter, Miley says his boss was unyielding: "Diversity is fine, but we don't want to lower the bar."

Like Sutphen, Charles Phillips, the 56-year-old CEO of Infor, a $2.8 billion enterprise software firm, has an informal network of his own—a supper club of two dozen business leaders and professionals, most of whom prefer to remain anonymous, who have raised millions of dollars for causes they care about. But he also routinely meets with young black tech executives coming out of Facebook, Google, and other Valley companies, and offers counsel where he can. "I started at Wall Street and made my career at Oracle," says Phillips, who was a former co-president at the software giant. "I didn't work with any black people for most of my career." Now he relishes the chance to provide feedback on matters of due diligence and arrange meetings with prospective partners for the young entrepreneurs, or even facilitate direct investment in their startup ideas if it makes sense.

From the high perch of CEO, Phillips has also been able to transform Infor—making the decision at the top of the company to change the way it recruits at the bottom. To find entry-level employees, he set up a central talent pool, filled with interns drawn from a diverse selection of colleges, designed to eliminate the cronyism that typically accompanies hiring. The company has started to collaborate with certain colleges with curriculum support and certification programs, specifically to create more work-ready candidates. "We recruit, train, and place interns in divisions. Managers don't know who they're

PHOTOGRAPH BY MARVIN SHAOUNI

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going to get. And it comes out of my budget, not theirs." He says leaders are happy because they get unique talent that they don't have to pay for. Phillips also incentivizes company recruiters to focus on retention. "We want people to stay past a year, and that takes mentorship and coaching."

Ed Welburn, 65, knows the power of that. As a kid he fell in love with a Cadillac concept car, he says. When he was 11, he wrote a letter to a GM executive saying he hoped to work there one day. "I got an answer," he said: Keep sketching, and get yourself to Howard University.

Welburn did just that, entering the fine-arts program at the venerable Atlanta institution—one of the nation's historically black colleges and universities, or HBCUs. As it turned out, says Welburn, "the professors had such a deep relationship with GM, they were able to fine-tune my curriculum to help me prepare for a career there." When he got his dream job in 1971, he was the company's first black designer. Welburn, GM's vice president of global design, now runs all 10 of GM's design centers and sits on its executive-leadership team.

The symbiotic partnership between U.S. automakers and HBCUs, indeed, has helped prepare young black engineers for technical careers in auto manufacturing for at least two generations. By hiring at all levels, the automakers played a significant role in helping people transition from servant class to middle class.

The lesson isn't lost on David Drummond. "The relationship between the HBCUs and the automakers is historically really important," says Drummond, a senior vice president at Alphabet and chairman of Google Capital. "And we're trying to do the same thing now." In 2015, Google doubled the number of schools where it recruits and started embedding engineers at a handful of HBCUs, including Howard, to teach and demystify the process of applying for jobs in Silicon Valley. "It's part of a broad plan the company has launched to change diversity numbers," he says. "We're taking a long look at who is getting promoted and why talent may not have been as recognized in the way that it should."

THE LOST GENERATION

For a generation of business-hungry black men in their twenties and thirties, there is another question to answer—and that's whether it's too late. The question, though, has a twist: Is it too late for corporate America?

Darian Wigfall, 34; Damon Davis, 30; William Porter, 35; and Ross Gibson, 29, are huddling in a corner bar called Whiskey Ring on Cherokee Street in St. Louis. It's an artsy street: "Kind of like our Brooklyn," offers Porter. They are all college educated—"Well, I only went to college for a hot minute," says Porter, and Gibson had to postpone the last few credits on his master's in behavioral neuroscience when a family member got sick. All four men are keen observers of the race dynamics around them. We are 11 miles from where Michael Brown died. "The movement took off here," Wigfall says of #BlackLivesMatter, sounding determined. The troubles that all the men had witnessed growing up were blown up into a global debate in and about their own backyards.

Over craft beers and premium whisky, they explain why they are convinced that corporate life isn't for them. "There's just no way," says Wigfall. Wigfall and Davis tick through an almost comical list of roles they play—artist, filmmaker, DJ, web designer, author, music industry mogul. They've co-owned a record label called FarFetched for five years. They all believe that they have access to the tools they need to succeed on their own terms and a network of friends and community that sees them. They see no need to invest in a corporate career that isn't designed to invest in them.

"My grandmother had a barbershop for years, right over there," says Porter, pointing to a shuttered storefront. "I can build a community business, be part of things." He opened his own place up the block, MasterPieza, offering gourmet pizzas. How did he learn to make pizza? "YouTube," he says with a laugh. "I learn everything there." If his business ideas are workable, he can scale them on his own.

Corporate America, it seems, is missing out.

That said, Gibson is missing something too: He could use some cash. He has arrived at our meeting with a thick textbook on venture capital and is planning to raise a round of funding for his newest project, Ardefact, a luxury shopping site that has a crowdsourced procurement element baked into the mix. "I'm learning how to structure deals," he says, patting the book. He is also a real estate scion of sorts. "My grandmother was big in rural Arkansas real estate," he says with a laugh. He co-owns some property, including the building on Cherokee Street that houses the venue where FarFetched holds release parties. He waves off talk of Silicon Valley and says has never heard of Sand Hill Road or venture titans like Marc Andreessen. But his face lights up when I mention former Twitter engineer Leslie Miley. "That dude!" he says with admiration. "Do you think he'd take my call?"

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Big Agriculture Gets Its Sh*t Together

By **Beth Kowitt**

Photographs by **Ryan Donnell**

ONE OF THE NATION'S BIGGEST DAIRY OWNERS IS STRIVING TO DRASTICALLY REDUCE HIS FARMS' CARBON FOOTPRINT BY **CONVERTING COW MANURE INTO FUEL.** IF HIS ENTREMANURESHIP SUCCEEDS, HE COULD HELP COMMERCIAL FARMERS SOLVE THEIR POLLUTION PROBLEM—AND THEIR IMAGE PROBLEM.

At left, some of the 36,000 cows of Fair Oaks Farms. Above, part of the processing system that turns their manure into natural gas.

When Wayne Pacelle visited Fair Oaks Farms in northwest Indiana, he was fully prepared to be horrified.

As president and CEO of the Humane Society of the U.S., the animal welfare watchdog, Pacelle makes it his business to tour dairy farms across the country, on the lookout for livestock abuses. Pacelle has seen operations where cows live in suffocating overcrowding, standing deep in a brew of mud and manure, with some so heavy—because of the way they're bred for productivity—that they struggle to walk.

"When I heard it had 36,000 cows," Pacelle says of Fair Oaks, "I just expected a completely industrialized process."

Instead, on his 2012 visit, Pacelle found a healthy herd, comfortable bedding for the cows, and a ban on tail docking, the industry practice of cutting off parts of cows' tails. He also found a farmer who was doing something revolutionary in an industry not known for innovation. Fair Oaks co-founder, Mike McCloskey, was recycling the cows' waste—turning tons upon tons of manure into an energy source—as part of a quest to reduce his business's greenhouse gas emissions.

Last but not least, in an industry often closed off about its practices, McCloskey and his partners had opened up their operation, not just to Pacelle but to thousands of visitors who could see the dairy in action. "He's saying, 'I can defend this, and I'm going to do this in a way that's consistent with the values of the public,'" Pacelle says. "That doesn't mean I agree with everything he's doing, but from a perspective of protecting ag, it's a bold, smart move."

Many people expect the worst when they think of Big Agriculture, and sometimes with good reason. Industrial-scale farming practices have made food cheaper and more abundant than ever before, but they have also contributed to pollution, resource shortages, and unhealthy eating habits. Some consumers now have an inherent bias against "big" when it comes to what they eat, using it as shorthand for all that's wrong with our food system. In part because of such sentiment, the 25 biggest food and beverage companies in 2009 have since lost the equivalent of $18 billion in market share, according to Robert Moskow of Credit Suisse.

Fair Oaks is challenging the assumption that big can't be good. It's because the 12 family-run dairies that make up Fair Oaks have 36,000 cows (only 1% of U.S. dairy farms have 2,500 or more) that it's economically viable for McCloskey, his wife, Sue, and their partners to convert manure into fuel that runs their farms and powers a fleet of trucks. "The key piece under all of this is they can do things you can't do at a smaller operation," says Ronald Turco, a professor of agronomy at Purdue University.

Agriculture is a major contributor to climate change, accounting for about 9% of U.S. greenhouse gas emissions, and the farming sector hasn't succeeded in reducing its output as much as the transportation and energy industries have. At the same time, farms are among the biggest victims of weather associated with climate disruption. In 2014 alone, the U.S. Department of Agriculture paid out $10 billion in disaster programs and crop insurance.

Mike McCloskey is working to change the mind-set of the industry, demonstrating that farms can tackle environmental problems and still make a profit—and the bigger the farm, the bigger the impact. "Mike had a vision that he was willing to articulate and sell to an industry that was skeptical about sustainability," says Tom Gallagher, CEO of the industry promotional group Dairy Management Inc. "My dream and Sue's dream—and people look at me like I'm crazy—is to have a zero-carbon-footprint dairy," Mike says. "And I believe I can get there."

FAIR OAKS, which the McCloskeys and their partners have run for almost two decades, is the hub of Select Milk Producers, America's sixth-largest dairy co-op by volume. Select markets and sells milk from 92 dairies in Texas, New Mexico, and the Midwest, producing 6 billion pounds of raw milk a year and reaping nearly $2 billion in annual revenue. (Prairie's Edge, the group of farms within Fair Oaks that

Top: Fair Oaks co-founder Mike McCloskey inspects feed. Bottom: While Fair Oaks cows are milked at a rotary (left), their manure is suctioned up (center) to eventually be converted into fuel for Fair Oaks trucks (right).

the McCloskeys and a partner directly own, is Select's largest dairy.) The co-op works with some of the world's biggest food businesses, from Coca-Cola (with which it markets the Fairlife milk brand) to Kroger, the country's largest supermarket company.

From Mike's point of view, that size and reach come with great responsibility. Everything we eat has an environmental price tag—the cost and impact of water used, fertilizer applied, soil tilled, and waste produced. In the production and consumption of a gallon of milk, the equivalent of 17.6 pounds of carbon dioxide is emitted. That's a cost Fair Oaks wants to reduce.

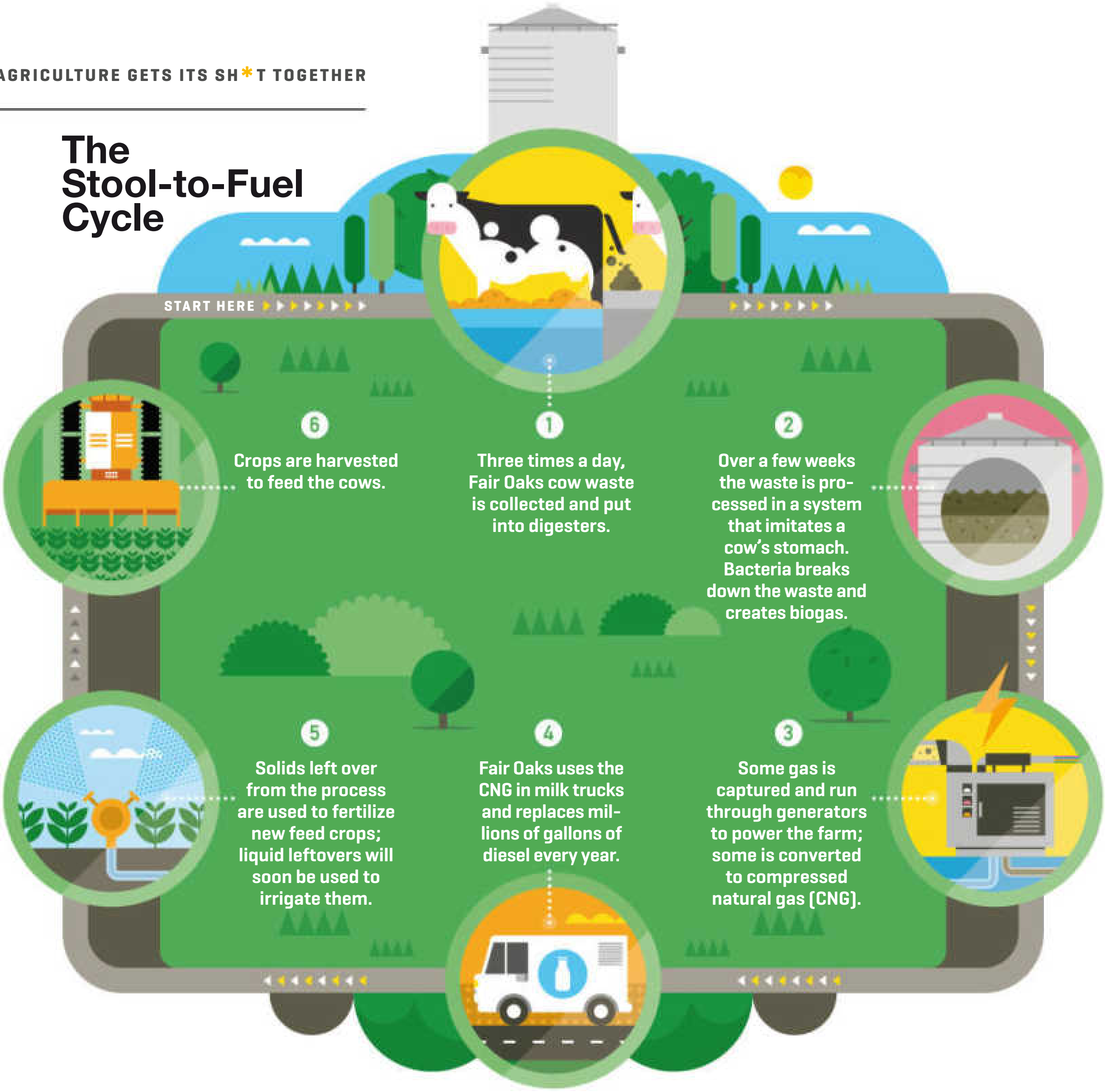
What drives the dream of a zero-emissions dairy is cow poop—and lots of it. Fair Oaks' cows produce about 430,000 gallons of manure every day. The heart of what the McCloskeys do is turn that waste from what could be a liability into an asset.

The first step is to collect it. Cow living quarters at Fair Oaks are designed so that the animals defecate and urinate only in alleyways on either side of their bedding. The setup keeps the cows' beds (and their udders) clean and makes it easier for workers to gather the manure three times a day while the cows are milked. The manure is separated from sand and dirt and deposited into the farms' anaerobic digesters. Inside the tanks the manure mixes with microbes for 21 days, replicating the process that takes place in a cow's stomach and breaking down into compost-like material while releasing biogas, which is captured in pipes. About half that gas, which is 60% methane, powers Fair Oaks, generating the electricity that runs the farms and digesters.

Figuring out what to do with the rest of the gas wasn't easy. When they started exploring their options, in 2006, Mike and his colleagues wanted to sell the gas into the power grid, but the local utility couldn't pay enough to cover their costs. They instead decided to sell the gas as fuel after purifying it to 99% methane. But in 2008 natural-gas prices started to fall, making that option unprofitable too.

Their solution was to use the gas themselves. The McCloskeys and their crew started looking for milk trucks that would run on compressed natural gas (CNG). The CNG trucking industry, then in its infancy, offered only nine-liter engines, undersize for the weight of the dairies' loads. The

The Stool-to-Fuel Cycle



crew managed to make the nine-liters work—though wear and tear kept causing engine failures—until the first batch of 12-liters became available from engine maker Cummins in 2013. Fair Oaks' CNG fleet of 42 trucks now runs 24/7 to keep costs down, with each truck traveling an astounding 270,000 miles a year. "I don't think there's any other CNG fleet in the U.S. that has the miles on them that those trucks do," says Frank Walter, president of Palmer Leasing, which provides Fair Oaks' vehicles.

It took more than 30 contracts, $30 million, and a decade of work to get the stool-to-fuel project where it is today. "This had never been done before," says Mark Stoermann, Fair Oaks' then project manager. The endeavor ultimately required everything from building two CNG fueling stations—one on the farm and another on the Kentucky-Indiana border—to finding a partner to buy enough milk to justify the expense. In 2010, Kroger committed: "We wanted to be a little bit of a beacon for the industry," says Mike Nosewicz, head of Kroger's fresh dairy operations.

Today there are some 200 dairy farms that use digesters, Mike says, but no other farm has gone as far as Fair Oaks has. "We have our own co-op, we sell our own milk, and we have dedicated routes," Mike explains. "We were the right people to take this risk." The McCloskeys' next move: helping other farms adopt the model. Select owns a piece of Newtrient, a new company whose plans include developing Fair Oaks–style technology that can scale down affordably for smaller farms. Mike is also a partner in a company that grew out of the original project, AMP CNG, which owns and operates CNG filling stations across the U.S.

Biogas isn't the only product of the McCloskeys' entremanureship: There are also nitrogen and phosphorus, which remain in the slop left over after digestion. Those chemicals behave as nutrients in fertilizers, and recently the team figured out how to press the water out of the slop, producing

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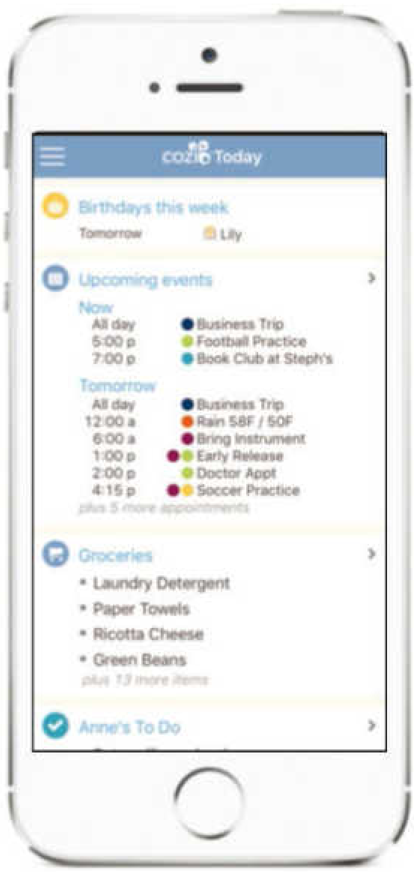

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a fertilizer-friendly paste. An outside company is building a fertilizer plant on Fair Oaks property: The farms will use some of the product on the 36,000 acres where they grow the cows' feed. But Mike is already using the slop, achieving nearly total recycling of the farms' waste.

The leftover water from the slop still looks a little brown. Would Mike drink it? "That's the last stage I'm working on," he says. His goal is to use that water to create artificial wetlands where he'll grow something like high-protein duckweed to feed his cows. Sue wants to distill the potable water that will be filtered through the wetlands and use it to brew beer. "When you drink that beer," Mike says, "it's going to be the water that the cows drank that made the milk that produced the gas that ran the trucks that created the fertilizer that grew the crops that created the protein that the cows ate and now is the water we use to make the beer."

The brand name? Shitty Beer. "I'm thinking a Shitty IPA and then a Milk Cow Stout," Sue says.

MOST DAIRY FARMERS are born into it, their land passed down from generation to generation. But Mike came to large-scale farming later in life. He started out as a veterinarian in the San Diego area, where he and Sue first met—Mike was Sue's landlord. "I figured out how to get cheap rent," Sue jokes. "I got the best part of the deal, I guarantee you," Mike says.

The two built a successful veterinary business, but Mike was itching to implement his ideas about best farming practices. The couple decided to start their own farm, with the same partner they have today and 250 cows, to see if they could do better. In 1990 they committed to farming full-time and moved to a bigger dairy in New Mexico, where all four of their children were born.

Eventually dissatisfaction with the co-op selling their milk led the couple to consider starting one of their own. To break out independently, they needed a commercial buyer to commit to their milk. The McCloskeys set their sights on Texas-based grocery chain H-E-B. Bob McCullough, now H-E-B's senior vice president of manufacturing, was intrigued by the quality of their milk, and he had never heard farmers refer to their cows as "she" and "her" before. "I walked away saying these guys are the real deal," he remembers. H-E-B committed to buying a third of its milk from the McCloskeys and their partner, beginning in 1994, allowing them to launch their co-op, Select Milk Producers, with Mike as CEO.

The McCloskeys moved from New Mexico to Indiana in 1999, starting Fair Oaks on acreage that had originally been intended as the site for a third Chicago-area airport. The move coincided with what they saw as growing public resentment toward large farms. Mike believes the animosity was fueled by the agendas of animal-rights groups like PETA, but he acknowledges that it was also born out of the farming culture of the 1970s and 1980s, which prioritized productivity over sustainability and animal care. Rather than explain their practices, many farmers became insular. The McCloskeys wanted to change the narrative. "We thought, Hey, wait a second. We lived all our lives being proud of what we do," Mike says, "and we thought we should open our doors." Fair Oaks opened to the public in 2004. More than 50,000 people showed up in the first 12 months; in 2015, half a million visited the farm.

Fair Oaks is no petting zoo. Visitors hop on a bus to tour the cows' quarters and watch as they're milked on a rotary, a system the McCloskeys believe is more efficient and less disruptive for the cows. You can watch a calf being born or see cheese, yogurt, or ice cream made while you sip a milkshake. And if you need a reminder that in the end human appetites trump animal comfort, you can eat a steak made from Fair Oaks beef at the upscale Farmhouse Restaurant.

Inviting the public led the McCloskeys to reexamine their practices, knowing they would be opening themselves up to scrutiny. That's what led them to give up, in 2004, the practice of tail docking, which is meant to keep the cow's tail from picking up manure and to keep the milker from getting swatted. The National Milk Producers Federation has since changed its guidelines to eliminate tail docking by next year. That decision, which the McCloskeys lobbied for, has upset a faction of farmers. "There's a lot of producers out there saying, 'What are we going to give up next?'" Mike says.

That said, Fair Oaks' practices don't align perfectly with the ideals of the Whole Foods demographic. While Fair Oaks produces some organic milk, most of the output from the cows in Mike's carbon-reduction project is conventional. For their milk to qualify as organic, cows have to be out on pasture at least 120 days a year, which makes it impossible to collect all of their manure for the digesters. Fair Oaks organic cows also aren't as productive as their peers, in part because they can't be fed the feed mixture Mike prefers, which has genetically modified ingredients. Ultimately, meeting the requirements of being organic requires more energy use, Mike says: "All you're doing is spending more carbon per gallon of milk." That's not an appealing prospect for a man who says he has reduced the footprint of a gallon of his milk to the equivalent of about 10 pounds of carbon dioxide—some 43% below the average—and is still fighting his way toward zero.

The McCloskeys occupy an unusual position: They're successful large-scale farmers who meet the highest environmental standards, but other farmers and eco-conscious foodies can always find things to criticize in their methods. Still, Mike has reached a point where he feels there's nothing he can't explain or justify. "My doors are open, and you see everything I'm doing," he says. He'll change his practices to meet what the market demands, but he adds, "Just make sure you want to pay for it. Make sure you understand that environmentally, it has a cost."

FEEDBACK *bkowitt@fortune.com*

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WHILE YOU WERE OUT

The Idols of Our Time

Every decade or so, a new class of business leaders emerges and earns plaudits from the cognoscenti. Surely today's tech titans will be less greedy and destructive than their forebears. Right? *By Stanley Bing*

IT IS MY PLEASURE TO announce the latest winners of the National Association for Serious Studies' Annual Admiration Award for the Supreme Leaders of the Business Cosmos, recognizing icons of management that we all seem to idolize at the time. The jury that accords this prestigious prize—which, despite its name, is given out roughly once a decade—is made up of journalists from the mainstream business media, a panel of high-middle managers at a variety of *Fortune* 100 companies, and a significant number of confused employees, including me.

Before we reveal the 2016 recipients of this coveted accolade, however, let's review our past winners.

1956: The first gold medal was awarded to the Organization Man, that faceless operator in the gray flannel suit who was in at 8 a.m., out at 6 p.m., had a couple of martinis at lunch and one on the train home from work, and labored like a Trojan for the right to wear his Sansabelt slacks on the weekends, buy a grotesque new gas-guzzler every year, and retire to the Sunbelt at 65 on the dot. His name is lost to history now, but he made the '50s one of the great growth decades in history. And then he—there was virtually no she—disappeared.

1965: Ah, the Conglomerators. In the mid-'60s we honored prominent agglutinators, such as Harold Geneen of ITT, who put together a lot of disparate businesses to the greater glory of almost none of them. These masters of consolidation were lauded and feted—and then for the next 20 years the towering edifices they constructed were disassembled piece by piece. My company (before I got there) had a large rotating-objects division, a media company, a refrigerated transport enterprise, a risk-taking credit unit, and a furniture group. By 1995 it was nearly bankrupt and was forced to divest almost everything.

1980: Quality Gurus ruled! These folks were all about maximizing productivity, and their weekly "quality circle" meetings had an oppressiveness not achieved since Stalinist Russia circa 1935, with its continuous rounds of socialist self-criticism. Everything had to be Excellent. Everybody had to take part. We sang songs. We wore buttons. We built sand castles at team-building getaways. And then it all ... went away. No more Excellence! The search for it was over! What a relief.

1995: Bow down to the Financial Manipulators! Big, fat, greedy, rapacious brigands won the decade. Most of them came from Wharton, and a brilliant lot they were. They figured out how to infiltrate a management structure, undermine it, rip it to shreds, slam it back together while firing a whole bunch of workers, manipulate inside information, and walk away from the steaming wreck with a lot of money. They blessed the covers of every august business publication—until they went to jail. Oops! Take back those awards!

2005: Quants and Bankers. So smart. So savvy. Their understanding of the instruments of debt and credit were equal to Schrödinger's grasp of quantum theory. And didn't we all festoon them with admiration, until ... well, we all know what happened. Accolades rescinded again, darn it!

2016: That brings us to today. A drumroll, please. This year's prize goes to ... Competitor-Crushing Visionaries! Each is cornering a majority of market share in search, in online retail, in digital advertising, and so forth. But wait! There's more! Each of these youthful tech titans is moving forward—to conquer outer space, to eradicate death, to make sure the whole world is available for marketing via the web, and to force all of us to abandon the freedom of driving our own vehicles. Congratulations to the winners!

Oh, and first runner-up goes to Activist Investors. They figured out how to infiltrate a management structure, undermine it, rip it to shreds, manipulate the market, and walk away with a whole lot of money. Hey, wait a minute. Didn't those guys used to be called something else?

Follow Stanley Bing at stanleybing.com and on Twitter at @thebingblog.

ILLUSTRATION BY KEVIN WHIPPLE

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